OCCUPATIONAL INJURIES AND DISEASES IN ALBERTA

Lost-Time Claims, Disabling Injury Claims and Claim Rates

2011 Summary

WORK SAFE ALBERTA

2012

Alberta
Human Services

TABLE OF CONTENTS

Notes About this Report 2

Highlights 3

1. Introduction 5

2. Occupational Health and Safety Initiatives 6

3. Provincial Summary 9

4. Industry Sector Summary 13

5. Industry Sector Analysis 16

6. Demographics of Injured Workers 49

7. Injury and Disease Analysis 55

8. Occupational Fatalities 67

9. Certificate of Recognition 78

10. Workplace Inspections and Orders 80

References 81

Appendix A: Terms, Definitions and Formulas 82

Contact Information 85

NOTES ABOUT THIS REPORT

- Information presented in this report is based on workplace incidents that occurred during 2011 and have been accepted as lost-time or modified work claims by Workers' Compensation Board-Alberta (WCB) as of March 31, 2012.
- Information presented in this report on Certificate of Recognition (COR) holders is based on active COR holders recorded in the Certificate of Recognition Registry Systems (CORRS) as at January 3, 2012. COR status can be affected by timing of audits, changes in business nature, or WCB account-industry changes.
- The Department of Human Services is currently reviewing processes and other approaches to reporting this information to the public.
- Where necessary, this report presents 2011 data beside 2010 data to help with comparisons. Additional historical data are presented where possible.
- The person-years worked estimates in the Occupational Injuries and Diseases (OID) report have been revised from 2007 forward. Previous years' OID Summary report numbers and rates will not be comparable.
- Injury claim rates based on a small number of person-years worked do not allow for adequate precision to make valid comparisons over time. Therefore, claim rates are not calculated when there are fewer than 40 person-years worked.
- Estimates of year-over-year change for rates presented in this report are calculated using unrounded figures and may not match those produced from rounded figures. Percentages displayed in tables, however, may not total 100 due to rounding.
- Throughout the report, the lost-time claim rate is the number of lost-time claims per 100 person-years worked, and the disabling injury rate is the number of disabling injury claims per 100 person-years worked. Fatality rates are expressed as the number of fatalities per million person-years worked.
- Analyses by industry are based on WCB industry classification and Human Services (HS) aggregation of data. For more information, see the industry rate manual on the WCB website.
- Analyses by occupation group are based on the National Occupational Classification (NOC). The NOC provides a standard list of occupations across the country. For more information see http://www5.hrsdc.gc.ca/NOC.
- Occupational injuries and diseases listed throughout this report are based on the Z795 Coding of Work Injury or Disease Information produced by the Canadian Standards Association (CSA) for categorizing occupational injury and disease. For more information see http://www.shopcsa.ca/onlinestore/GetCatalogItemDetails.asp?mat=2416404.
- Terms, definitions and formulas used throughout this report are described in Appendix A.

HIGHLIGHTS

In 2011, Alberta experienced the following:

- The lost-time claim rate of Alberta workplaces increased in 2011 to 1.49 per 100 person-years worked, from 1.41 in 2010.
- The disabling injury rate, which includes lost-time claims and modified work claims, increased in 2011 to 2.82 per 100 person-years worked, from 2.67 in 2010.
- From 2002 to 2011, there was an average of 82 fatalities per million person-years worked.

Large sized employers experienced the highest disabling injury rate.

- In 2011, employers with less than 10 person-years worked had the highest lost-time claim rate at 1.68 per 100 person-years worked. Employers with over 100 person-years worked had the highest disabling injury rate at 2.97 per 100 person-years worked.

Injury rates increased in most sectors.

- Between 2010 and 2011, lost-time claim and disabling injury rates increased in six of the eight major industry sectors.
- Although rates in the Mining and Petroleum Development sector did not decline, it had the lowest lost-time claim rate of all sectors in 2011 at 0.47 per 100 person-years worked. In contrast, the Transportation, Communication and Utilities sector had the highest lost-time claim rate, 2.31 per 100 person-years worked.
- The Business, Personal and Professional Services sector had the lowest disabling injury rate in 2011 at 1.54 per 100 person-years worked. The Manufacturing, Processing and Packaging sector had the highest at 4.54 per 100 person-years worked.
- Fatality rates continued to be lower than the provincial average in the following sectors: Wholesale and Retail; Public Administration, Education and Health Services; and Business, Personal and Professional Services.

Lost-Time Claim and Disabling Injury Rates by Major Industry Sector – Alberta: 2010 and 2011

Industry Sector	2010		2011	
	Lost-Time Claim Rate	Disabling Injury Rate	Lost-Time Claim Rate	Disabling Injury Rate
Agriculture and Forestry	2.41	3.07	**1.92**	**2.33**
Business, Personal and Professional Services	0.89	1.35	**0.99**	**1.54**
Construction and Construction Trade Services	1.39	3.10	**1.32**	**2.83**
Manufacturing, Processing and Packaging	1.55	4.21	**1.68**	**4.54**
Mining and Petroleum Development	0.40	1.58	**0.47**	**1.86**
Public Administration, Education and Health Services	1.98	2.61	**2.14**	**2.81**
Transportation, Communication and Utilities	2.01	3.41	**2.31**	**3.95**
Wholesale and Retail	1.52	2.79	**1.59**	**2.89**
Alberta	**1.41**	**2.67**	**1.49**	**2.82**

Data Source: WCB Data. Prepared by Research and Analysis

Overexertion was the most common cause for claims in all industries.

- Sprains, strains and tears continued to be the leading nature of injury with the back (including spine and spinal cord) the most commonly injured body part.
- Person-injured or ill worker (self-injury or self-induced bodily motion injuries) was the leading source of injury, with overexertion the leading type of event.

INTRODUCTION

Occupational Injuries and Diseases in Alberta - 2011 Summary

The Department of Human Services (HS) prepares this annual analysis of occupational health and safety information for industry and safety associations, labour organizations, employers and workers seeking to enhance occupational health and safety practices. The report includes:

- descriptions of programs and initiatives undertaken in pursuit of the occupational health and safety mission and goals;
- analysis of provincial occupational injury and disease information against a national picture;
- estimates of the risk of injury or disease at the provincial, industry sector and sub-sector level as well as general descriptions about the incidents and injured workers.

The *Occupational Injuries and Diseases in Alberta* report analyzes aggregate injury claim data over time. This is important for evaluating past and present health and safety performance, and in providing strategic information to support workplace health and safety policy and injury and disease prevention.

SECTION 2

OCCUPATIONAL HEALTH AND SAFETY INITIATIVES

The Alberta government has developed strategies to ensure Alberta continues to be a healthy and safe place to work and conduct business.

In 2011, the Alberta government identified a number of initiatives for achieving greater accountability for occupational health and safety in the province. These initiatives are outlined in a multi-point plan and include, among others:

- hiring additional Occupational Health and Safety officers;
- implementing updated compliance and enforcement procedures;
- posting the injury and fatality records of all Alberta companies online;
- revising the Employer Review Process for companies with Certificates of Recognition and poor safety performance; and
- identifying new ways to reduce work-related motor vehicle incidents and work-related diseases.

Work Safe Alberta is a government initiative to prevent work-related illness, injuries and fatalities in Alberta in consultation with industries and labour. Strategies address awareness and education, promotion of health and safety management, legislation and compliance.

For more information on what Alberta is doing to help keep workers healthy and safe, visit http://humanservices.alberta.ca/working-in-alberta/53.html.

Occupational health and safety information and communications continued to reach employers and workers

HS continued to encourage health and safety awareness for both employers and workers by providing educational and promotional materials through the Work Safe Alberta initiative.

Some of the activities completed or initiated include:

- Continuing the "Before it's an injury" public awareness campaign to deliver the message that workplace injuries are preventable. It is available at http://humanservices.alberta.ca/working-in-alberta/12326.html.

- Continuing the Bloody Lucky public awareness campaign to increase awareness of occupational health and safety of workers aged 15 – 19 years. See www.bloodylucky.ca.
- Developing Safe Practices for Employers and Workers and the Hazard Assessment for Driving eLearning Awareness Program in support of the Road Safety at Work Initiative. These resources include a best practice guide and online tool aimed at preventing and reducing the approximately one-third of workplace fatalities that occur each year in Alberta as the result of motor vehicle incidents.

For further information on Work Safe initiatives see, http://humanservices.alberta.ca/working-in-alberta/274.html .

Additional department initiatives include:

- Implementing the annual Employer Injury and Illness Prevention Program to provide focused inspections and proactive initiatives for employers and industries with the highest injury and illness rates.
- Implementing focused inspection campaigns designed to raise the profile of known workplace hazards, promote a sustained improvement in employers achieving compliance, and enforce legislated standards.

Occupational Health and Safety Contact Centre

The Occupational Health and Safety Contact Centre continued to assist Albertans by providing information about safety. The Occupational Health and Safety Contact Centre responded to over 21,380 calls and over 230 emails.

Partnership and Certificate of Recognition Programs

Partnerships in Injury Reduction promote health and safety through partnerships with safety associations, industry groups, educational institutions and labour organizations. A Certificate of Recognition (COR) is given to employers who develop health and safety management systems that meet established standards. Certificates are issued by Certifying Partners and are co-signed by HS. Achieving and maintaining a valid COR is required to earn a financial incentive through the WCB's Partnerships in Injury Reduction program.

The number of employers holding a valid COR increased from 10,065 in 2010 to 10,174 in 2011. For further information on Partnerships see, http://humanservices.alberta.ca/working-in-alberta/277.html.

Fines penalize those who neglect safe work practices

In 2011, 20 employers were prosecuted for violating the *Occupational Health and Safety Act*. The penalties resulting from these infractions totaled more than $3 million.

For more detailed information on the employers facing prosecution and violations of the *Occupational Health and Safety Act* see, http://humanservices.alberta.ca/working-in-alberta/6750.html.

PROVINCIAL SUMMARY

The workplace injuries increased in 2011.

In 2011, a total of 26,629 lost-time claims were accepted by WCB. This is an increase of 9.4% from 2010. The person-years worked estimates increased by 3.6% to 1,792,557 between 2010 and 2011 (see Table 3.1).

Table 3.1
Provincial Figures – Alberta: 2010 and 2011

	2010	2011	Change
Person-years worked	1,729,355	**1,792,557**	3.7%
Lost-time claims	24,343	**26,629**	9.4%
Lost-time claim rate	1.41	**1.49**	**0.08**
Modified work claims	35,365	**38,517**	8.9%
Lost-time claims involving modified work	13,557	**14,524**	7.1%
Disabling injury claims	46,151	**50,622**	9.7%
Disabling injury rate	2.67	**2.82**	**0.15**
Days lost (LTC)	570,826	**607,897**	6.5%
Transaction claim costs (LTC)	$200,195,531	**$225,541,682**	12.7%

Data Source: WCB Data, Prepared by Research and Analysis

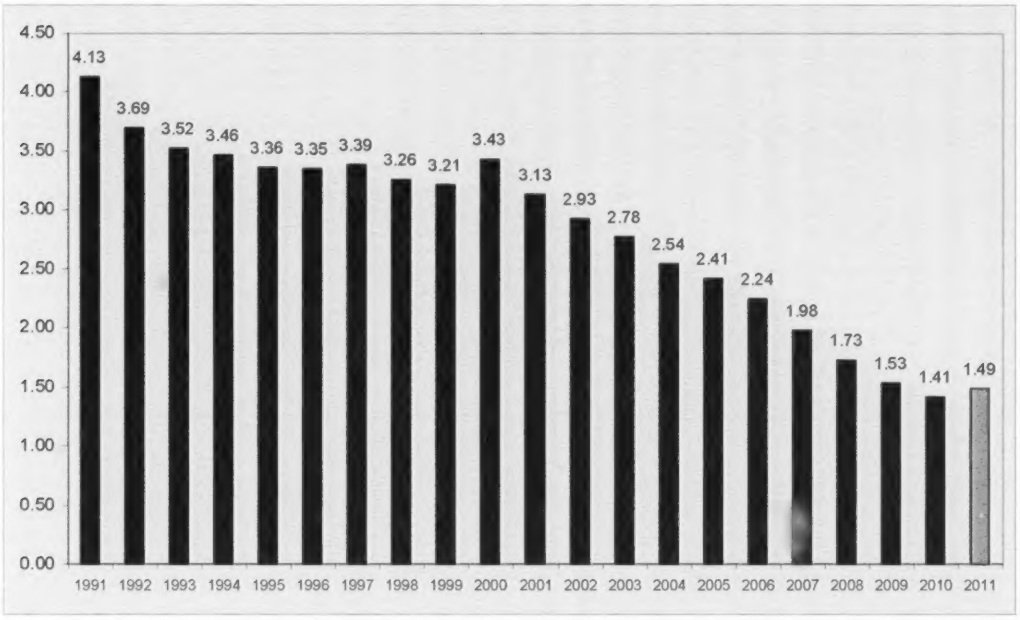
The 2011 lost-time claim rate was 1.49 injuries or diseases per 100 person-years worked, or seven injuries and diseases per million hours worked.

The 2011 disabling injury rate was 2.82 per 100 person-years worked, an increase of 0.15 from the 2010 rate of 2.67. Year over year increases were seen in modified work claims (up 8.9%), both lost-time and modified work (up 7.1%), and disabling injury claims (up 9.7%) (see Table 3.1).

Two basic measures of injury and disease severity are median days lost from work and average days lost from work. The median number of work days lost in 2011 was seven, the same as 2010, and the average days lost remained at 23.

The lost-time claim rate of 1.49 per 100 person-years worked in 2011 was the second lowest rate since 1991.

Chart 3.1
Lost-Time Claim Rate* per 100 Person-years worked – Alberta: 1991-2011



*The lost-time claim rates are calculated based on person-years worked provided by WCB since 2006
Data Source: WCB Data, Prepared by Research and Analysis

Employer Size

Broken down by size[1], employers with less than 10 person-years worked and employers with 20 to 39 person-years worked had the highest lost-time claim rates in 2011, at 1.68 and 1.64 per 100 person-years worked, respectively. Employers with 100 or more person-years worked and employers with 40 to 99 person-years worked had the highest disabling injury rates at 2.97 and 2.96 per 100 person-years worked, respectively (see Table 3.2).

The pattern of claim rates by employer size differs depending on the measure. Large employers have the lowest lost-time claim rate and yet highest disabling injury rates.

Table 3.2
Lost-Time Claim and Disabling Injury Rate by Size of Employer – Alberta: 2011

Size of Employer	Lost-Time Claims	Lost-Time Claim Rate	Disabling Injury Claims	Disabling Injury Rate
Less than 10 person-years worked	4,027	1.68	5,984	2.49
10 to 19 person-years worked	1,832	1.55	2,568	2.17
20 to 39 person-years worked	2,407	1.64	3,864	2.63
40 to 99 person-years worked	3,575	1.61	6,556	2.96
100 or more person-years worked	14,788	1.39	31,650	2.97
Total	**26,629**	**1.49**	**50,622**	**2.82**

Data Source: WCB Data. Prepared by Research and Analysis

National Occupational Injury and Fatality Data - 2010

Alberta's injury frequency can be compared nationally using information calculated by the Association of Workers' Compensation Boards of Canada (AWCBC). The methodology for calculating the person-years worked produces higher estimates and lower rate figures, and cannot be compared directly to injury rates produced for this report. However, it is useful for comparing Alberta's performance against other provinces and the national average.

[1] Size is measured in terms of person-years worked. One person-year is equivalent to one full-time worker working for 2000 hours.

Table 3.3
Injury and Fatality Data by Province and Territory – Canada: 2010

Province	Lost-Time Claims	Injury Frequency* (per 100 workers)	Number of Fatalities	Fatality Frequency* (per 100,000 workers)	% of Workforce Covered
Alberta (AB)	25,045	1.42	136	7.71	86%
British Columbia (BC)	48,462	2.27	144	6.75	94%
Manitoba (MB)	15,093	3.37	16	3.57	73%
New Brunswick (NB)	4,440	1.35	12	3.65	92%
Newfoundland and Labrador (NL)	4,006	2.03	32	16.22	98%
Nova Scotia (NS)	6,975	2.21	23	7.29	73%
Ontario (ON)	60,179	1.15	385	7.36	72%
Prince Edward Island (PEI)	813	1.21	0	0.00	96%
Quebec (QC)	71,196	1.97	213	5.89	93%
Saskatchewan (SK)	12,344	3.15	45	11.48	75%
Yukon Territory	460	2.12	3	13.83	97%
Northwest Territories and Nunavut	932	2.45	5	13.14	100%
Canada	**249,945**	**1.76**	**1,014**	**7.14**	**82%**

*See note 3.1
Data Source: CANSIM Labour Force Survey Series; AWCBC National Work Injury and Disease Statistics, 2010

In 2010, Alberta's injury frequency was 1.42 injuries per 100 workers, the fourth lowest in the country and lower than the national injury frequency of 1.76. The fatality frequency in Alberta was 7.71 fatalities per 100,000 workers. The national frequency was 7.14 per 100,000 workers (see Table 3.3).

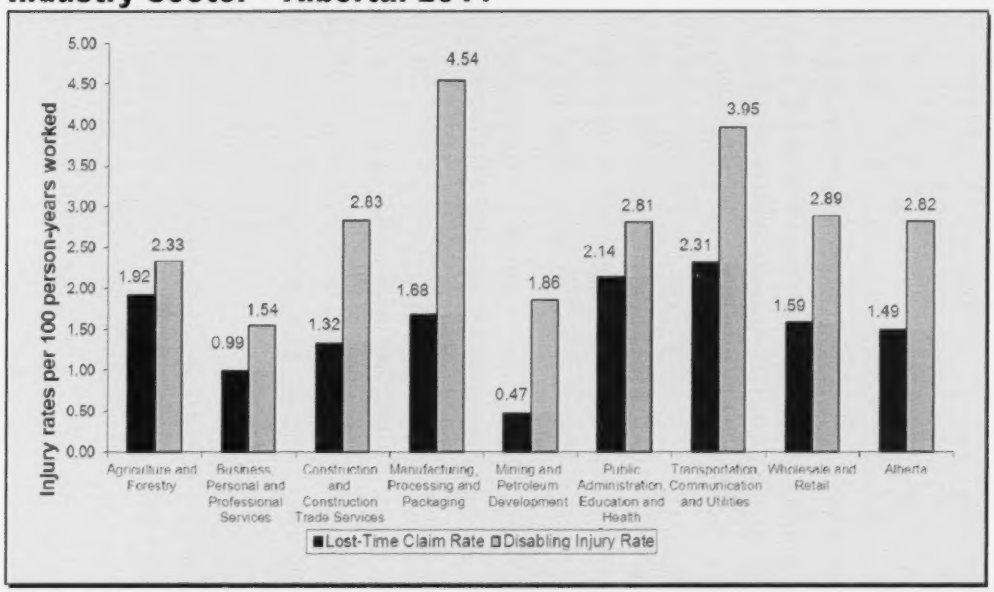
Note 3.1
The injury frequency data presented here and the lost-time claim rate, although similar, are calculated using different methodology and information. Thus, injury frequency, for the purposes of this publication, is used only as a measure of comparison purposes, not a representation of the provincial lost-time claim rate. The same relationship holds for the fatality frequency and fatality rate.

INDUSTRY SECTOR SUMMARY

The Manufacturing, Processing and Packaging sector and the Transportation, Communication and Utilities sector had the highest risk of occupational injury and disease.

The risk of occupational injury and disease varied by industry sector and sub-sector (see Chart 4.1). The Manufacturing, Processing and Packaging sector and the Transportation, Communication and Utilities sector had the highest disabling injury rates in 2011, at 4.54 and 3.95 per 100 person-years worked. The Transportation, Communication and Utilities sector and the Public Administration, Education and Health Services sector had the highest lost-time claim rates at 2.31 and 2.14 per 100 person-years worked.

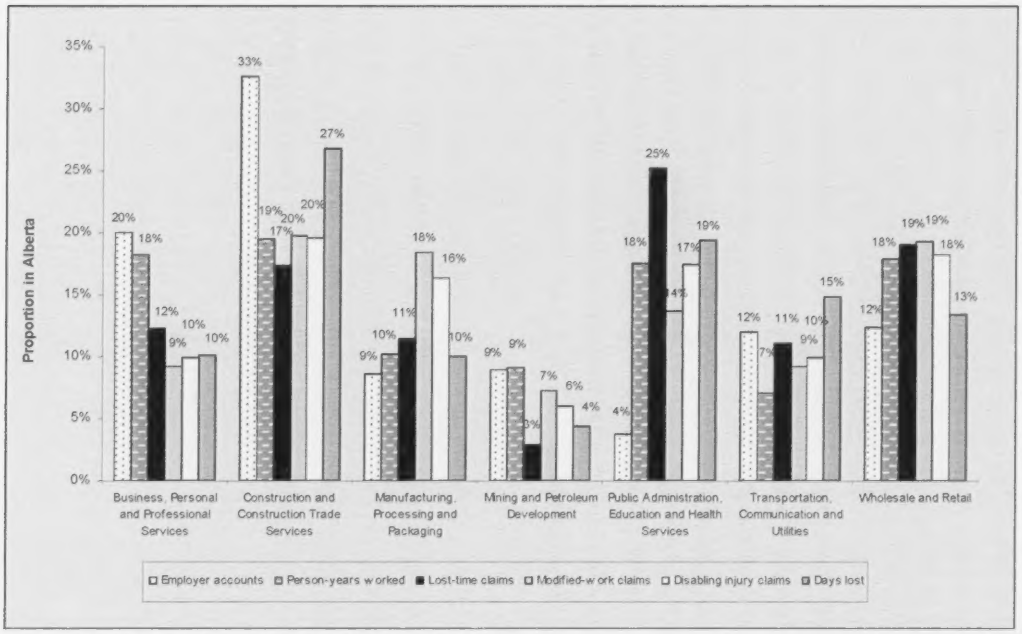
Chart 4.1
Lost-Time Claims and Disabling Injury Rates, by Major Industry Sector – Alberta: 2011



The Business, Personal and Professional Services sector had the lowest disabling injury rate at 1.54 per 100 person-years worked and the Mining and Petroleum Development sector had the lowest lost-time claim rate at 0.47 per 100 person-years worked.

Chart 4.2 presents information on the proportion of employer accounts, person-years worked, injury claims and days lost for each major industry sector in Alberta.

Chart 4.2
Proportion of each Major Industry Sector[2] by Employer Accounts, Total Person-years worked, Lost-Time Claims, Disabling Injury Claims, Modified Work Claims and Days-Lost – Alberta 2011



Data Source: WCB Data. Prepared by Research and Analysis

The Manufacturing, Processing and Packaging sector represented 10% of workers in 2011, yet accounted for 11%, 18% and 16% of the lost-time, modified work and disabling injury claims. The Construction and Construction Trade Services sector had a high proportion of days lost (for claimants with lost-time) at 27%, reflecting longer recovery times than other industries required for workers to be medically able to return to work.

The Transportation, Communication and Utilities sector had higher proportions of lost-time claims, modified work and disabling injury claims than workers covered. The Mining and Petroleum Development sector had lower proportions of lost-time claims, modified work and disabling injury claims submitted than persons covered. The Business, Personal and Professional Services sector also submitted lower

[2] Agriculture and Forestry are removed from this analysis as they represent less than 1% of workers and claims.

proportions of lost-time, modified work and disabling injury claims than workers covered.

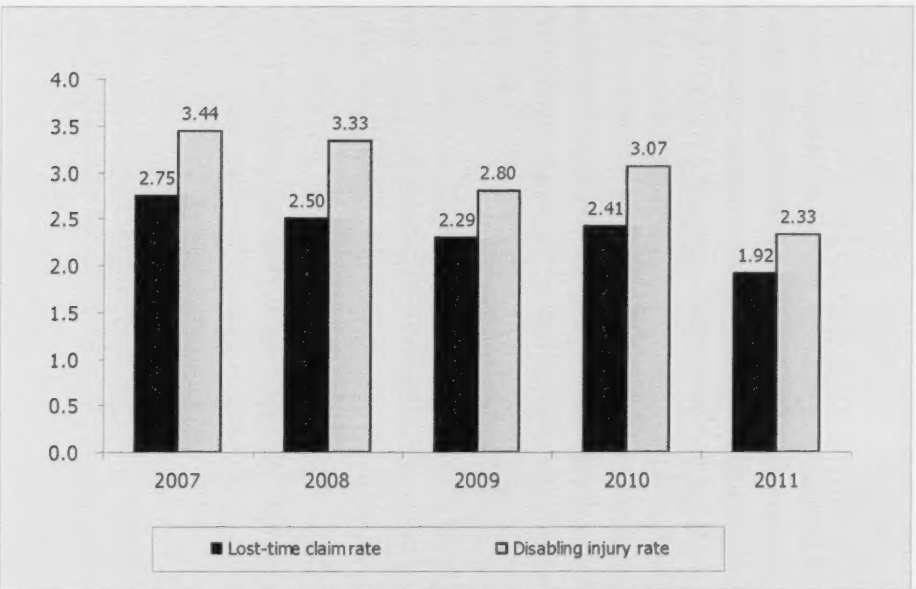
The variations shown here likely reflect not only the different types of work in these sectors and different types of injuries but also different reporting practices of employers operating within these industries.

Agriculture and Forestry

The Agriculture and Forestry sector includes vegetable farms, mushroom farms, apiaries, commercial hatcheries, feedlots, custom harvesting and baling, timber management and logging and related woodlands operations including the trucking of logs. Secondary processing, such as sawmills and pulp mills, are included in the Manufacturing, Processing and Packaging sector.

Chart 5.1

Agriculture and Forestry – Injury Rates: 2007-2011



Data Source: WCB Data, Prepared by Research and Analysis

Trends and Analysis

In 2011, the lost-time claim rate in the Agriculture and Forestry sector decreased to 1.92 per 100 person-years worked (see Charts 4.1 and 5.1). The disabling injury rate for this sector was 2.33 per 100 person-years worked, lower than the provincial rate of 2.82.

In 2011, the Agriculture and Forestry sector lost-time claim rate decreased by 0.49 to 1.92 per 100 person-years worked from 2010, and decreased by 0.83 since 2007. The fall in the lost-time claim rate over the last five years is largely the result of a

decrease in the number of injury claims and the increase in the number of person-years worked. In 2011, the number of lost-time claims decreased by 11.0% to 211 and the number of disabling injury claims decreased by 14.6% to 257. The number of modified work claims decreased by 18.0% to 137. Agriculture in Alberta is largely exempt from mandatory coverage with the WCB and figures are based on WCB covered employers (i.e. very few dairy farms, grain farms and ranches have WCB coverage for their workers). Other sources of information are available for this sector, such as the Farm Accident Monitoring System (FAMS) from the Department of Agriculture and Rural Development.

Of the injury claims submitted to the WCB, men accounted for over three-quarters of the total claims in this sector, 79.1% of lost-time claims and 78.2% of disabling injury claims. Men were injured at a higher rate than women when compared to the proportion of employment, with women accounting for 30.0% of those employed compared to 70.0% for men.[3]

Young workers (those aged 15 to 24) accounted for 14.7% of the lost-time claims and 16.3% of the disabling injury claims, while comprising 10.5% of the Agriculture and Forestry workers in 2011 (see Table 6.2). Over forty percent of the disabling injury claims in this sector were from three occupations: truck drivers (20.6%), general farm workers (14.0%) and logging and forestry labourers (5.4%).

The most common nature of injury for disabling injury claims were sprains, strains and tears, accounting for 40.5% of claims, followed by fractures and dislocations, (15.6%). The back (including the spine and spinal cord) was the most commonly injured body part in this sector (22.3%) followed by other trunk (for example, shoulder or chest) at 15.3%. Injuries to the legs accounted for 10.6% of disabling injury claims.

The highest event types resulting in disabling injury in this sector were overexertion, accounting for 14.4% of all claims, followed by being struck by objects, (13.2%). Transportation accidents and falls (on the same level) accounted for 11.3% and 10.9%, respectively. The most common sources of disabling injury claims were contact with structures and surfaces (21.0%) and person-injured or ill worker (self-injury or self-induced bodily motion injuries) at 12.1%.

The median days lost due to injuries and diseases for the Agriculture and Forestry sector increased to 18 days in 2011 from 13 in 2010. The average days lost also increased to 38 days per claim in 2011 from 36 in 2010. The average days lost for this sector was the highest in the province.

[3] Statistics Canada's Labour Force Survey (2011 Historical Review) for Agriculture and Forestry and Logging with Support Activities industries. For more information, see Appendix A.

Sub-Sector Analysis:

- In 2011, the Agriculture and Forestry sub-sectors had a lost-time claim rate greater than the provincial average of 1.49 per 100 person-years worked and disabling injury rate lower than the provincial average of 2.82 per 100 person-years worked.
- In 2011, the lost-time claim rate in the Agriculture sub-sector decreased by 0.34 to 1.77 per 100 person-years worked. For Forestry, the lost-time claim rate decreased by 0.71 to 2.08 per 100 person-years worked.
- In 2011, the disabling injury rate decreased in the Agriculture sub-sector by 0.51 to 2.23 per 100 person-years worked. The Forestry sub-sector recorded a decrease in the disabling injury rate, to 2.45 per 100 person-years worked.

Table 5.1
Agriculture and Forestry Sector – Alberta: 2010 and 2011

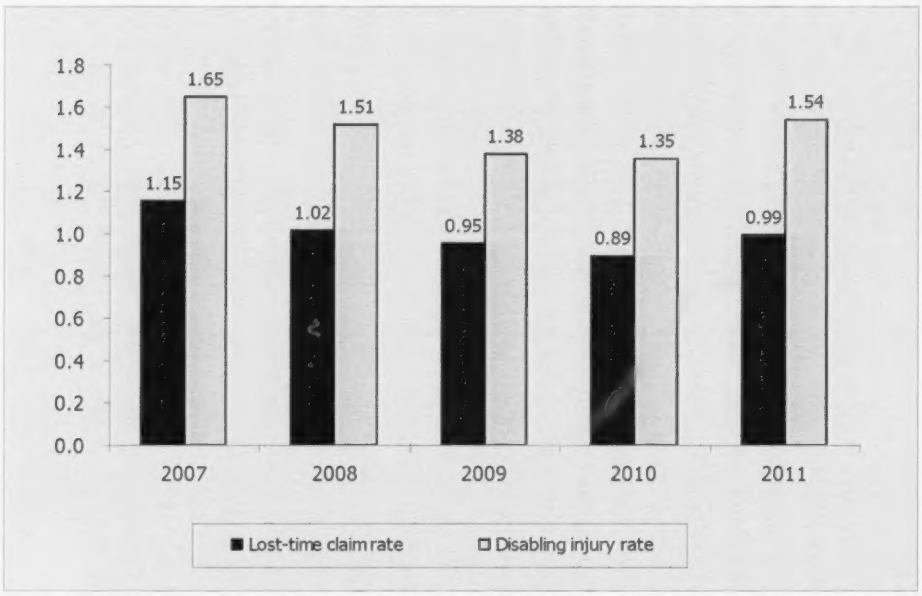
Industry Sector		2010	2011	Change
Agriculture and Forestry	Estimated person-years worked	9,814	**11,018**	12.3%
	Lost-time claims	237	**211**	-11.0%
	Lost-time claim rate	2.41	**1.92**	-0.49
	Modified work claims	167	**137**	-18.0%
	Disabling injury claims	301	**257**	-14.6%
	Disabling injury rate	3.07	**2.33**	-0.74
Sub-Sector		**2010**	**2011**	**Change**
Agriculture	Estimated person-years worked	5,367	**5,831**	8.7%
	Lost-time claims	113	**103**	-8.8%
	Lost-time claim rate	2.11	**1.77**	-0.34
	Modified work claims	98	**84**	-14.3%
	Disabling injury claims	147	**130**	-11.6%
	Disabling injury rate	2.74	**2.23**	-0.51
Forestry	Estimated person-years worked	4,447	**5,186**	16.6%
	Lost-time claims	124	**108**	-12.9%
	Lost-time claim rate	2.79	**2.08**	-0.71
	Modified work claims	69	**53**	-23.2%
	Disabling injury claims	154	**127**	-17.5%
	Disabling injury rate	3.46	**2.45**	-1.01

Data Source: WCB Data. Prepared by Research and Analysis

Business, Personal and Professional Services

The Business, Personal and Professional Services sector includes building and grounds maintenance, financial, real estate and insurance services, office labour services, engineering, architectural and research services, restaurant, hotel and recreation services, security services, private health and social services, and veterinary services.

Chart 5.2
Business, Personal and Professional Services Sector – Injury Rates: 2007-2011



Data Source: WCB Data, Prepared by Research and Analysis

Trends and Analysis

In 2011, the lost-time claim rate for the Business, Personal and Professional Services sector increased by 0.10, yet it was still the second lowest of all sectors in the province at 0.99 per 100 person-years worked. It was also the sector with the lowest disabling injury rate at 1.54 per 100 person-years worked. Since 2007, the lost-time claim rate in this sector has fallen by 0.16, while the disabling injury rate has decreased by 0.11.

However, between 2010 and 2011, the number of modified work claims increased by 15.1% to 3,530, while the number of disabling injury claims increased by 15.8% to 5,037.

In the Business, Personal and Professional Services sector, 53.8% of the lost-time and 53.0% of the disabling injury claims involved women, with women accounting for 49.6% of those in employment[4]. Young workers were injured at a higher rate in this sector than other age groups, accounting for 22.3% of lost-time and 23.5% of disabling injury claims while constituting 18.7% of employment (see Table 6.2). Over forty percent of disabling injury claims were from the following occupations: cooks (12.0%), food counter attendants (11.2%), janitors, caretakers and building superintendents (9.1%), light duty cleaners (6.9%) and food and beverage servers (5.1%).

The most common disabling injury claims in this sector were sprains, strains and tears, accounting for 49.3% of all claims, open wounds (12.0%) and surface wounds and bruises (10.4%). The back (including the spine and spinal cord) was the most common body part injured (20.2%), followed by wrists and hands (13.9%), and other trunk (13.2%).

The events most commonly resulting in disabling injury in this sector were overexertion (18.7%), falls (on the same level) (16.6%), and being struck by objects (12.1%). The most common sources of disabling injury claims were contact with structures and surfaces (21.7%), and person-injured or ill worker (self-injury or self-induced bodily motion injuries) (20.4%), and containers (14.0%).

The median days lost due to injuries and diseases for the Business, Personal and Professional Services sector remained at six in 2011, the average days lost remained at 19.

Sub-Sector Analysis:

- The two largest sub-sectors, Restaurant, Hotel and Recreation Services and Other Business, Personal and Professional Services, accounted for 43.2% and 18.8% of total person-years worked in 2011. The Restaurant, Hotel and Recreation Services sub-sector saw an increase in the lost-time claim rate of 0.19. The lost-time claim rate in Other Business, Personal and Professional Services sub-sector remained at 0.57 per 100 person-years worked.
- With the exception of one sub-sector, lost-time claim rates were lower than the average rate for the province (see Table 5.2) of 1.49 per 100 person-years worked.

[4] Statistics Canada's Labour Force Survey (2011 Historical Review) for the Finance, Insurance, Real Estate and Leasing industry, the Professional, Scientific and Technical Services industry, the Business, Building and Other Support Services industry, Information, Culture and Recreation industry and the Accommodation and Food Services industry. For more information, see Appendix A.

Table 5.2

Business, Personal and Professional Services Sector – Alberta: 2010 and 2011

Industry Sector		2010	2011	Change
Business, Personal and Professional Services	Estimated person-years worked	322,123	**326,786**	1.4%
	Lost-time claims	2,876	**3,250**	13.0%
	Lost-time claim rate	0.89	**0.99**	0.10
	Modified work claims	3,067	**3,530**	15.1%
	Disabling injury claims	4,351	**5,037**	15.8%
	Disabling injury rate	1.35	**1.54**	0.19
Sub-Sector		**2010**	**2011**	**Change**
Animal Care Services	Estimated person-years worked	3,888	**3,942**	1.4%
	Lost-time claims	57	**57**	0.0%
	Lost-time claim rate	1.47	**1.45**	-0.02
	Modified work claims	53	**57**	7.5%
	Disabling injury claims	71	**82**	15.5%
	Disabling injury rate	1.83	**2.08**	0.25
Building and Ground Maintenance	Estimated person-years worked	16,689	**16,295**	-2.4%
	Lost-time claims	193	**223**	15.5%
	Lost-time claim rate	1.16	**1.37**	0.21
	Modified work claims	243	**309**	27.2%
	Disabling injury claims	307	**393**	28.0%
	Disabling injury rate	1.84	**2.41**	0.57
Engineering, Architectural, Designing and Research Services	Estimated person-years worked	53,018	**53,121**	0.2%
	Lost-time claims	63	**51**	-19.0%
	Lost-time claim rate	0.12	**0.10**	-0.02
	Modified work claims	94	**104**	10.6%
	Disabling injury claims	116	**126**	8.6%
	Disabling injury rate	0.22	**0.24**	0.02
Environmental Services	Estimated person-years worked	8,080	**7,806**	-3.4%
	Lost-time claims	17	**12**	-29.4%
	Lost-time claim rate	0.21	**0.15**	-0.06
	Modified work claims	20	**23**	15.0%
	Disabling injury claims	29	**30**	3.4%
	Disabling injury rate	0.36	**0.38**	0.02

Table 5.2 (continued)
Business, Personal and Professional Services Sector – Alberta: 2010 and 2011

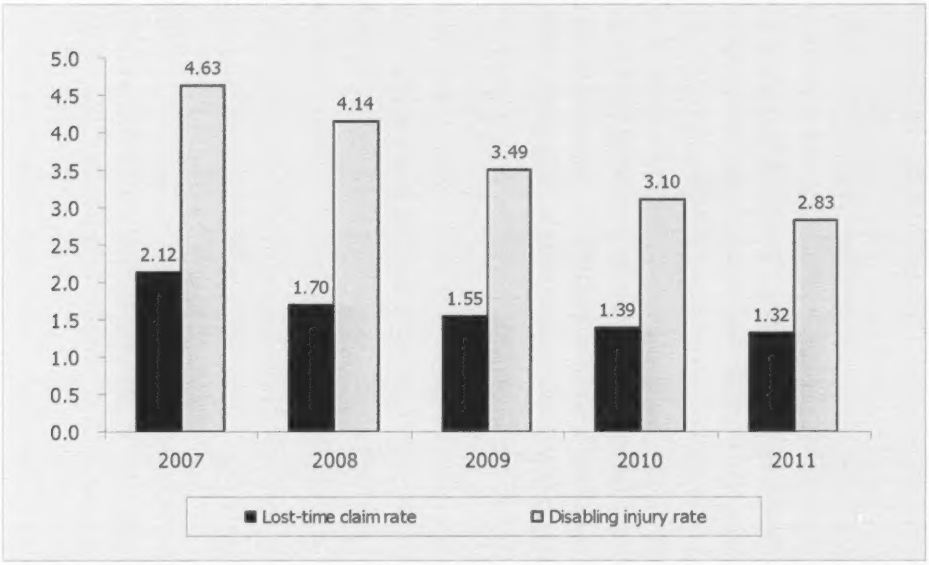
Sub-Sector		2010	2011	Change
Personal Services-Maintenance	Estimated person-years worked	17,040	**17,447**	2.4%
	Lost-time claims	214	**243**	13.6%
	Lost-time claim rate	1.26	**1.39**	0.13
	Modified work claims	235	**250**	6.4%
	Disabling injury claims	321	**351**	9.3%
	Disabling injury rate	1.88	**2.01**	0.13
Restaurant, Hotel and Recreation Services	Estimated person-years worked	138,583	**141,142**	1.8%
	Lost-time claims	1,813	**2,120**	16.9%
	Lost-time claim rate	1.31	**1.50**	0.19
	Modified work claims	1,894	**2,199**	16.1%
	Disabling injury claims	2,755	**3,223**	17.0%
	Disabling injury rate	1.99	**2.28**	0.29
Other Personal Services	Estimated person-years worked	13,343	**12,227**	-8.4%
	Lost-time claims	130	**131**	0.8%
	Lost-time claim rate	0.97	**1.07**	0.10
	Modified work claims	182	**184**	1.1%
	Disabling injury claims	221	**229**	3.6%
	Disabling injury rate	1.66	**1.87**	0.21
Private Health Services and Seniors Accommodations	Estimated person-years worked	15,062	**13,519**	-10.2%
	Lost-time claims	69	**66**	-4.3%
	Lost-time claim rate	0.46	**0.49**	0.03
	Modified work claims	92	**102**	10.9%
	Disabling injury claims	115	**122**	6.1%
	Disabling injury rate	0.76	**0.90**	0.14
Other	Estimated person-years worked	56,420	**61,287**	8.6%
	Lost-time claims	320	**347**	8.4%
	Lost-time claim rate	0.57	**0.57**	0.00
	Modified work claims	254	**302**	18.9%
	Disabling injury claims	416	**481**	15.6%
	Disabling injury rate	0.74	**0.78**	0.04

Data Source: WCB Data. Prepared by Research and Analysis.

Construction and Construction Trade Services

The Construction and Construction Trade Services sector includes residential construction, industrial construction, road building, industrial labour and specialized construction trades such as roofing, plumbing, painting, electrical wiring, bricklaying and masonry.

Chart 5.3
Construction and Construction Trade Services Sector – Injury Rates: 2007-2011



Data Source: WCB Data, Prepared by Research and Analysis

Trends and Analysis

In 2011, the lost-time claim rate for this sector was the third lowest of all sectors in the province at 1.32 per 100 person-years worked. The disabling injury rate in this sector was 2.83 per 100 person-years worked.

In 2011, the lost-time claim rate decreased by 0.07. The disabling injury rate in 2011 was 2.83 per 100 person-years worked, a decrease of 0.27 from 2010 (see Table 5.3).

The majority of claims in this sector were from men who accounted for 91.5% of lost-time claims and 90.6% of the disabling injury claims. Men represented 87.1% of those in employment.[5] Young workers aged 15 to 24 years accounted for 18.7% of lost-time claims, 21.2% of disabling injury claims and 15.2% of those in employment (see Table 6.2). By occupation, 14.7% of disabling injury claimants

[5] Statistics Canada's Labour Force Survey (2011 Historical Review) for the Construction industry. For more information, see Appendix A.

were construction trades helpers and labourers, 8.0% were carpenters, 6.0% were electricians (except industrial and power system electricians) and 6.6% were other trades helpers and labourers.

The leading nature of injury was sprains, strains and tears, accounting for 46.9% of all disabling injury claims, followed by open wounds (12.7%), and surface wounds and bruises, 12.2%. The main parts of body injured were the back (including the spine and spinal cord), 19.8% and other trunk, 13.4%. Injuries to legs accounted for 11.8% of the disabling injury claims. Injuries to fingers, and ankles and feet, and injuries to wrists and hands accounted for 11.3%, 11.2% and 10.5% of disabling injury claims.

The main sources of injury that resulted in disabling injury claims in this sector were parts and materials, 20.6%, person-injured or ill worker (self-injury or self-induced bodily motion injuries), 18.0%, and structures and surfaces, 20.0%. The main event types were overexertion, at 19.2% and struck by object, 16.2%, followed by bodily reaction, 14.2%.

The median days lost due to injuries and diseases for the Construction and Construction Trade Services Sector remained at 12; the average days lost decreased to 35 days per claim from 36 in 2010.

Sub-Sector Analysis:

- The lost-time claim rate was lower than the provincial rate of 1.49 in five sub-sectors: Industrial Construction sub-sector, Mechanical, Electrical and Insulation sub-sector, Roadbuilders sub-sector, Scaffolders sub-sector and Other Construction sub-sector.
- The disabling injury rate was higher than the provincial average of 2.82 in four sub-sectors: Construction Trade Services sub-sector, Door and Glass Installation and Repair sub-sector, Mechanical, Electrical and Insulation sub-sector, Roofers sub-sector. The Doors and Glass Installation and Repair sub-sector had the highest rate at 5.38 per 100 person-years worked, followed by the Roofers sub-sector with 4.76 per 100 person-years worked.

Table 5.3
Construction and Construction Trade Services Sector – Alberta: 2010 and 2011

Industry Sector		2010	2011	Change
Construction and Construction Trade Services	Estimated person-years worked	317,886	**349,449**	9.9%
	Lost-time claims	4,419	**4,621**	4.6%
	Lost-time claim rate	1.39	**1.32**	-0.07
	Modified work claims	7,701	**7,617**	-1.1%
	Disabling injury claims	9,866	**9,884**	0.2%
	Disabling injury rate	3.10	**2.83**	-0.27
Sub-Sector		**2010**	**2011**	**Change**
Construction Trade Services	Estimated person-years worked	56,749	**57,313**	1.0%
	Lost-time claims	1,316	**1,363**	3.6%
	Lost-time claim rate	2.32	**2.38**	0.06
	Modified work claims	1,127	**1,175**	4.3%
	Disabling injury claims	1,862	**1,917**	3.0%
	Disabling injury rate	3.28	**3.34**	0.06
Doors and Glass Installation and Repair	Estimated person-years worked	8,834	**8,686**	-1.7%
	Lost-time claims	161	**171**	6.2%
	Lost-time claim rate	1.82	**1.97**	0.15
	Modified work claims	431	**402**	-6.7%
	Disabling injury claims	490	**467**	-4.7%
	Disabling injury rate	5.55	**5.38**	-0.17
Industrial Construction	Estimated person-years worked	72,431	**79,569**	9.9%
	Lost-time claims	777	**758**	-2.4%
	Lost-time claim rate	1.07	**0.95**	-0.12
	Modified work claims	1,908	**1,699**	-11.0%
	Disabling injury claims	2,243	**2,031**	-9.5%
	Disabling injury rate	3.10	**2.55**	-0.55
Mechanical, Electrical and Insulation	Estimated person-years worked	54,902	**56,296**	2.5%
	Lost-time claims	736	**706**	-4.1%
	Lost-time claim rate	1.34	**1.25**	-0.09
	Modified work claims	1,519	**1,384**	-8.9%
	Disabling injury claims	1,861	**1,707**	-8.3%
	Disabling injury rate	3.39	**3.03**	-0.36

Table 5.3 (continued)
Construction and Construction Trade Services Sector – Alberta: 2010 and 2011

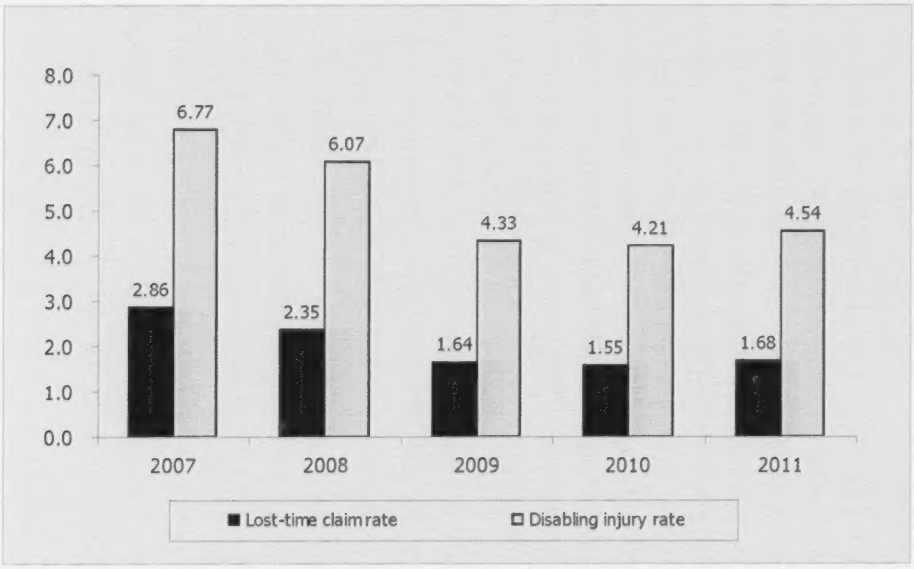
Sub-Sector		2010	2011	Change
Roadbuilders	Estimated person-years worked	45,634	**51,936**	13.8%
	Lost-time claims	539	**586**	8.7%
	Lost-time claim rate	1.18	**1.13**	-0.05
	Modified work claims	1,069	**1,129**	5.6%
	Disabling injury claims	1,352	**1,422**	5.2%
	Disabling injury rate	2.96	**2.74**	-0.22
Roofers	Estimated person-years worked	7,387	**8,320**	12.6%
	Lost-time claims	219	**220**	0.5%
	Lost-time claim rate	2.96	**2.64**	-0.32
	Modified work claims	221	**272**	23.1%
	Disabling injury claims	344	**396**	15.1%
	Disabling injury rate	4.66	**4.76**	0.10
Scaffolders	Estimated person-years worked	6,557	**6,627**	1.1%
	Lost-time claims	31	**29**	-6.5%
	Lost-time claim rate	0.47	**0.44**	-0.03
	Modified work claims	177	**117**	-33.9%
	Disabling injury claims	181	**130**	-28.2%
	Disabling injury rate	2.76	**1.96**	-0.80
Other	Estimated person-years worked	65,392	**80,703**	23.4%
	Lost-time claims	640	**788**	23.1%
	Lost-time claim rate	0.98	**0.98**	0.00
	Modified work claims	1,249	**1,439**	15.2%
	Disabling injury claims	1,533	**1,814**	18.3%
	Disabling injury rate	2.34	**2.25**	-0.09

Data Source: WCB Data, Prepared by Research and Analysis

Manufacturing, Processing and Packaging

The Manufacturing, Processing and Packaging sector includes meat, hides and pelts, clothing and textiles, food and beverage products, wood products, furniture and allied products, printing and publishing, rubber, clay and concrete products, metal foundries and products, instrumentation, fertilizer, petrochemical and plastic products and crude oil refining.

Chart 5.4
Manufacturing, Processing and Packaging Sector – Injury Rates: 2007-2011



Data Source: WCB Data. Prepared by Research and Analysis

Trends and Analysis

In 2011, the lost-time claim rate for this sector was 1.68 per 100 person-years worked. The disabling injury rate was 4.54 per 100 person-years worked (see Chart 5.4).

The lost-time claim rate for the Manufacturing, Processing and Packaging sector increased in 2011 by 0.13 from 2010. The disabling injury rate in 2011 was 4.54 per 100 person-years worked, a 0.33 increase from 2010.

In 2011, young workers accounted for 14.9% of lost-time claims, 17.8% of disabling injury claims and 8.8% of those in employment[6] (see Table 6.2). Men accounted for 83.7% of the total lost-time claims, 84.1% of disabling injury claims, while

[6] Statistics Canada's Labour Force Survey (2011 Historical Review) for the Manufacturing industry. For more information see Appendix A.

comprising 74.2% of those in employment. Welders and related machine operators experienced the largest number of injuries and diseases in this sector by occupation, with 12.7% of disabling injury claims, followed by industrial butchers, meat cutters and poultry preparers, 8.1%, and labourers in food, beverage and tobacco processing, 7.0%.

The leading nature of injury was sprains, strains and tears, accounting for 41.2% of the disabling injury claims in this sector, followed by surface wounds and bruises, 15.7%, and open wounds 14.5%. The main parts of body injured were the back (including the spine and spinal cord), 17.9%, and fingers and fingernails, 17.6%. Injuries to other trunk accounted for 13.2%.

The main sources of injury that resulted in disabling injury claims were parts and materials, 22.0%, person-injured or ill worker (self-injury or self-induced bodily motion injuries), 19.0%, followed by structures and surfaces, 12.1%. The main event types were overexertion at 20.3%, struck by object, 19.1%, and bodily reaction, 10.1%.

The disabling injury rate continued to be the highest of all industry sectors while the median days lost, six, and the average days lost, 20, were some of the lowest in the province.

Sub-Sector Analysis:

- In 2011, the largest sub-sector, Primary Metal Products, accounting for 38.7% of the person-years worked in the Manufacturing, Processing and Packaging sector, demonstrated an increase in lost-time claims of 32.9% and a 12.9% increase in person-years worked.
- The lost-time claim and disabling injury rates were lower than the provincial rates for five sub-sectors: Gases, Fertilizer, Petrochemicals, Refining and Manufacturing sub-sector, Industrial Equipment sub-sector, Printed and Published Products sub-sector, Clothing and Textile Products sub-sector, and the Other Manufacturing, Processing and Packaging sub-sector.
- The Meat, Hides and Pelt Products sub-sector represents the highest disabling injury rates of all the sub-sectors in Manufacturing, Processing and Packaging, and also one of the highest provincially. In 2011, its disabling injury rate was 12.27 per 100 person-years worked, over four times higher than the average for all sub-sectors in the province. Its lost-time claim rate was also greater than the average for all sub-sectors in the province.

Table 5.4
Manufacturing, Processing and Packaging Sector – Alberta: 2010 and 2011

Industry Sector		2010	2011	Change
Manufacturing, Processing and Packaging	Estimated person-years worked	171,448	**181,700**	6.0%
	Lost-time claims	2,664	**3,047**	14.4%
	Lost-time claim rate	1.55	**1.68**	0.13
	Modified work claims	6,180	**7,101**	14.9%
	Disabling injury claims	7,224	**8,253**	14.2%
	Disabling injury rate	4.21	**4.54**	0.33
Sub-Sector		**2010**	**2011**	**Change**
Clothing and Textile Products	Estimated person-years worked	2,793	**2,728**	-2.3%
	Lost-time claims	23	**14**	-39.1%
	Lost-time claim rate	0.82	**0.51**	-0.31
	Modified work claims	30	**22**	-26.7%
	Disabling injury claims	37	**27**	-27.0%
	Disabling injury rate	1.32	**0.99**	-0.33
Feed, Seed, Food and Beverage Products	Estimated person-years worked	15,740	**16,568**	5.3%
	Lost-time claims	347	**335**	-3.5%
	Lost-time claim rate	2.20	**2.02**	-0.18
	Modified work claims	560	**540**	-3.6%
	Disabling injury claims	674	**652**	-3.3%
	Disabling injury rate	4.28	**3.94**	-0.34
Foundries (not Steel), Rubber and Nonmetallic Products	Estimated person-years worked	7,672	**7,734**	0.8%
	Lost-time claims	165	**179**	8.5%
	Lost-time claim rate	2.15	**2.31**	0.16
	Modified work claims	351	**334**	-4.8%
	Disabling injury claims	418	**401**	-4.1%
	Disabling injury rate	5.45	**5.18**	-0.27
Furniture and Allied Products	Estimated person-years worked	2,528	**3,604**	42.6%
	Lost-time claims	63	**69**	9.5%
	Lost-time claim rate	2.49	**1.91**	-0.58
	Modified work claims	45	**57**	26.7%
	Disabling injury claims	79	**88**	11.4%
	Disabling injury rate	3.13	**2.44**	-0.69

Table 5.4 (continued)
Manufacturing, Processing and Packaging Sector – Alberta: 2010 and 2011

Sub-Sector		2010	2011	Change
Gases, Fertilizer, Petrochemicals Refining and Manufacturing	Estimated person-years worked	11,978	**12,757**	6.5%
	Lost-time claims	22	**29**	31.8%
	Lost-time claim rate	0.18	**0.23**	0.05
	Modified work claims	69	**82**	18.8%
	Disabling injury claims	77	**96**	24.7%
	Disabling injury rate	0.64	**0.75**	0.11
Industrial Equipment	Estimated person-years worked	10,971	**10,423**	-5.0%
	Lost-time claims	49	**55**	12.2%
	Lost-time claim rate	0.45	**0.53**	0.08
	Modified work claims	148	**203**	37.2%
	Disabling injury claims	164	**219**	33.5%
	Disabling injury rate	1.49	**2.10**	0.61
Meat, Hides and Pelt Products	Estimated person-years worked	12,915	**12,851**	-0.5%
	Lost-time claims	320	**360**	12.5%
	Lost-time claim rate	2.48	**2.80**	0.32
	Modified work claims	1,528	**1,494**	-2.2%
	Disabling injury claims	1,604	**1,577**	-1.7%
	Disabling injury rate	12.42	**12.27**	-0.15
Plastic Products	Estimated person-years worked	4,190	**4,203**	0.3%
	Lost-time claims	61	**76**	24.6%
	Lost-time claim rate	1.46	**1.81**	0.35
	Modified work claims	165	**145**	-12.1%
	Disabling injury claims	179	**174**	-2.8%
	Disabling injury rate	4.27	**4.14**	-0.13
Primary Metal (esp. Steel) Products	Estimated person-years worked	62,255	**70,287**	12.9%
	Lost-time claims	1,002	**1,332**	32.9%
	Lost-time claim rate	1.61	**1.90**	0.29
	Modified work claims	2,218	**3,041**	37.1%
	Disabling injury claims	2,677	**3,593**	34.2%
	Disabling injury rate	4.30	**5.11**	0.81

Table 5.4 (continued)
Manufacturing, Processing and Packaging Sector – Alberta: 2010 and 2011

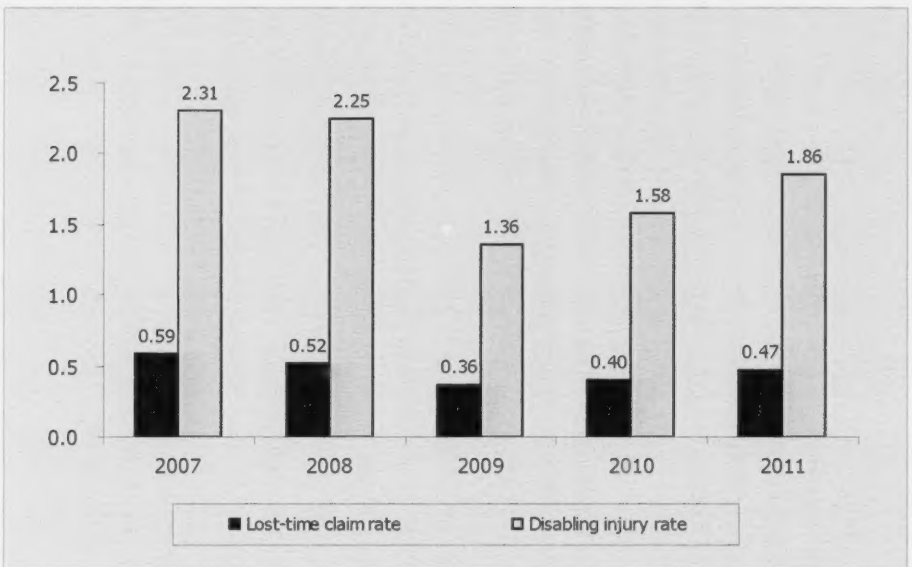
Sub-Sector		2010	2011	Change
Printed and Published Products	Estimated person-years worked	10,304	**10,024**	-2.7%
	Lost-time claims	101	**115**	13.9%
	Lost-time claim rate	0.98	**1.15**	0.17
	Modified work claims	132	**148**	12.1%
	Disabling injury claims	180	**198**	10.0%
	Disabling injury rate	1.75	**1.98**	0.23
Wood Products	Estimated person-years worked	19,326	**20,569**	6.4%
	Lost-time claims	423	**385**	-9.0%
	Lost-time claim rate	2.19	**1.87**	-0.32
	Modified work claims	832	**904**	8.7%
	Disabling injury claims	991	**1,053**	6.3%
	Disabling injury rate	5.13	**5.12**	-0.01
Other	Estimated person-years worked	10,776	**9,954**	-7.6%
	Lost-time claims	88	**98**	11.4%
	Lost-time claim rate	0.82	**0.98**	0.16
	Modified work claims	102	**131**	28.4%
	Disabling injury claims	144	**175**	21.5%
	Disabling injury rate	1.34	**1.76**	0.42

Data Source: WCB Data. Prepared by Research and Analysis

Mining and Petroleum Development

The Mining and Petroleum Development sector includes underground mining, open pit mining, mining and processing of oil sands, oil or gas pipeline transmission and upstream oil and gas industries such as seismic exploration, drilling of wells, well servicing with service rigs, oilfield downhole services and upstream production. Secondary processing activities such as oil refineries and petrochemical manufacturing are included in the Manufacturing, Processing and Packaging sector.

Chart 5.5
Mining and Petroleum Development Sector – Injury Rates: 2007-2011



Data Source: WCB Data. Prepared by Research and Analysis

Trends and Analysis

In 2011, the lost-time claim rate for this sector was the lowest of all sectors in the province at 0.47 per 100 person-years worked. It was also the sector with the second-lowest disabling injury rate, 1.86 per 100 person-years worked (see Chart 5.5).

The greatest proportion of lost-time and disabling injury claims involved men, at 92.8% and 92.9%, respectively. In 2011, men accounted for 77.0% of those in employment.[7] Women, on the other hand, accounted for 7.2% of the lost-time and 7.1% of the disabling injury claims and 23.0% of those in employment. This separation is likely due to occupational differences between genders in this industry.

[7] Statistics Canada's Labour Force Survey (2011 Historical Review) for the Mining and Oil and Gas Extraction industry. For more information, see Appendix A.

Young workers accounted for 18.1% of lost-time claims, 22.7% of disabling injury claims yet only 11.8% of employment[8] (see Table 6.2). By occupation group, oil and gas drilling, servicing and related labourers accounted for 33.8% of disabling injury claims, and heavy equipment operators (except crane) at 10.8%. This was followed by oil and gas well drilling workers and services operators, 7.9%, and oil and gas well drillers, servicers, testers and related workers, 4.9%.

The leading nature of injury was sprains, strains and tears, accounting for 44.6% of disabling injury claims, followed by other traumatic injuries and diseases, 14.9%, and surface wounds and bruises, 12.4%. The main parts of body injured were the back (including the spine and spinal cord), 16.6%, fingers and fingernails, 15.4% and other trunk, 13.8%.

The main sources of injury that resulted in disabling injury claims were parts and materials, 21.0%, person-injured or ill worker (self-injury or self-induced bodily motion injuries), 18.1%, followed by structures and surfaces, 14.8%. The main event type was overexertion, 14.8%. This was followed by bodily reaction, 14.2%.

The median days lost from work due to injuries and diseases for this sector decreased to 11 days in 2011 from 14 in 2010. The average days lost was 34 days per claim, down from 35 in 2010.

Sub-Sector Analysis:

- In 2011, the largest sub-sector, Petroleum Producers and Exploration, accounting for 37.6% of the person-years worked in the Mining and Petroleum Development sector, demonstrated an increase in the disabling injury rate by 0.19.
- Five sub-sectors had lost-time claim and disabling injury rates lower than the provincial level; the Coal Mining sub-sector, the Mining and Processing Other than Coal Mining sub-sector, the Petroleum Producers and Exploration sub-sector, the Pipeline Cleaning and Transmission sub-sector and the Other Mining and Petroleum sub-sector.

[8] Statistics Canada's Labour Force Survey (2011 Historical Review). For more information see Appendix A.

Table 5.5
Mining and Petroleum Development Sector – Alberta: 2010 and 2011

Industry Sector		2010	2011	Change
Mining and Petroleum Development	Estimated person-years worked	155,503	**163,077**	4.9%
	Lost-time claims	626	**767**	22.5%
	Lost-time claim rate	0.40	**0.47**	0.07
	Modified work claims	2,241	**2,786**	24.3%
	Disabling injury claims	2,453	**3,031**	23.6%
	Disabling injury rate	1.58	**1.86**	0.28
Sub-Sector		**2010**	**2011**	**Change**
Coal Mining	Estimated person-years worked	5,832	**7,324**	25.6%
	Lost-time claims	36	**56**	55.6%
	Lost-time claim rate	0.62	**0.76**	0.14
	Modified work claims	200	**180**	-10.0%
	Disabling injury claims	211	**200**	-5.2%
	Disabling injury rate	3.62	**2.73**	-0.89
Drilling Services	Estimated person-years worked	14,280	**16,723**	17.1%
	Lost-time claims	162	**223**	37.7%
	Lost-time claim rate	1.13	**1.33**	0.20
	Modified work claims	503	**815**	62.0%
	Disabling injury claims	558	**873**	56.5%
	Disabling injury rate	3.91	**5.22**	1.31
Mining and Processing Other Than Coal Mining	Estimated person-years worked	23,726	**25,744**	8.5%
	Lost-time claims	61	**79**	29.5%
	Lost-time claim rate	0.26	**0.31**	0.05
	Modified work claims	424	**401**	-5.4%
	Disabling injury claims	428	**433**	1.2%
	Disabling injury rate	1.80	**1.68**	-0.12
Oilfield Services	Estimated person-years worked	33,898	**36,275**	7.0%
	Lost-time claims	218	**262**	20.2%
	Lost-time claim rate	0.64	**0.72**	0.08
	Modified work claims	876	**1,015**	15.9%
	Disabling injury claims	940	**1,095**	16.5%
	Disabling injury rate	2.77	**3.02**	0.25

Table 5.5 (continued)
Mining and Petroleum Development Sector – Alberta: 2010 and 2011

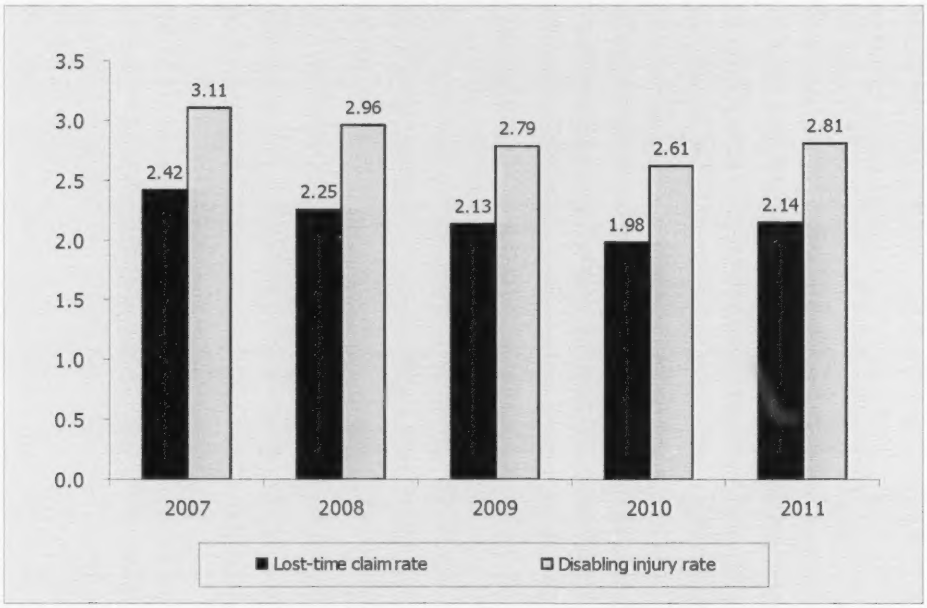
Sub-Sector		2010	2011	Change
Petroleum Producers and Exploration	Estimated person-years worked	63,926	**61,334**	-4.1%
	Lost-time claims	82	**88**	7.3%
	Lost-time claim rate	0.13	**0.14**	0.01
	Modified work claims	156	**284**	82.1%
	Disabling injury claims	198	**308**	55.6%
	Disabling injury rate	0.31	**0.50**	0.19
Pipeline Cleaning and Transmission	Estimated person-years worked	5,936	**5,839**	-1.6%
	Lost-time claims	6	**10**	66.7%
	Lost-time claim rate	0.10	**0.17**	0.07
	Modified work claims	7	**11**	57.1%
	Disabling injury claims	11	**16**	45.5%
	Disabling injury rate	0.19	**0.27**	0.08
Other	Estimated person-years worked	7,905	**9,838**	24.5%
	Lost-time claims	61	**49**	-19.7%
	Lost-time claim rate	0.77	**0.50**	-0.27
	Modified work claims	75	**80**	6.7%
	Disabling injury claims	107	**106**	-0.9%
	Disabling injury rate	1.35	**1.08**	-0.27

Data Source: WCB Data. Prepared by Research and Analysis

Public Administration, Education and Health Services

Public Administration includes the Government of Alberta and its agencies and all forms of local government including cities (including fire-fighters and other emergency services), towns, villages and municipal districts. Education services include universities, colleges, business schools, driving schools, kindergartens, museums and libraries. Health services include health care centres, continuing care facilities and home support services.

Chart 5.6
Public Administration, Education and Health Services Sector[9] – Injury Rates: 2007-2011



Data Source: WCB Data. Prepared by Research and Analysis

Trends and Analysis

In 2011, the lost-time claim rate for this sector was 2.14 per 100 person-years worked. It was also the sector with the fourth lowest disabling injury rate, 2.81 per 100 person-years worked (see Chart 5.6).

The Public Administration, Education and Health Services sector was one of two sectors where most of the claims involved women. The other sector was the

[9] In 2007, industry 82800 (Seniors' Supportive Living Lodges) was reclassified from the Business, Personal and Professional Services sector to the Public Administration, Education and Health sector. The injury rates presented in Chart 5.6 have been revised accordingly.

Business, Personal and Professional Services. Women accounted for 67.2% and 64.4% of lost-time and disabling injury claims in the Public Administration, Education and Health Services sector, although they accounted for 73.7% of those in employment[10].

Young workers aged 15 to 24 years accounted for 7.0% of the lost-time and 8.1% of the disabling injuries in this sector, while composing 7.8% of employment (see Table 6.2). By occupation, 16.9% of the disabling injury claims were from nurse aides, orderlies and patient service associates, and 7.2% from registered nurses. Janitors, caretakers and building superintendents accounted for 5.2% of the disabling injury claims.

The leading nature of injury was sprains, strains and tears, accounting for 60.6% of disabling injury claims, followed by surface wounds and bruises, 9.7% and other traumatic injuries and diseases, 9.6%. The main parts of body injured were the back (including the spine and spinal cord), 25.3%, and other trunk 17.0%.

The main sources of injury that resulted in disabling injury claims in this sector were person-other than injured or ill worker, 19.7%, and person-injured or ill worker, 19.2%. The main event type was overexertion, 28.2%, followed by fall on the same level, 15.5%, and bodily reaction, 14.0%.

The median days lost due to injuries and diseases for this sector remained at five days; the average days lost remained at 18 days per claim in 2011.

Sub-Sector Analysis:

- Aside from the Other Public Administration sub-sector which experienced decrease in lost-time claims, most of the sub-sectors saw increases in lost-time claims and disabling injury claims.
- The Health Care Centres, Health and Social Services and Municipal Services sub-sectors had lost-time claim rates and disabling injury rates that exceeded the averages for this sector.

[10] Statistics Canada's Labour Force Survey (2011 Historical Review) for the Public Administration, Health Care and Social Assistance and Educational Services industries. For more information, see Appendix A.

Table 5.6
Public Administration, Education and Health Services Sector – Alberta: 2010 and 2011

Industry Sector		2010	2011	Change
Public Administration, Education and Health Services	Estimated person-years worked	310,342	**313,708**	1.1%
	Lost-time claims	6,140	**6,716**	9.4%
	Lost-time claim rate	1.98	**2.14**	0.16
	Modified work claims	5,141	**5,265**	2.4%
	Disabling injury claims	8,113	**8,805**	8.5%
	Disabling injury rate	2.61	**2.81**	0.20
Sub-Sector		**2010**	**2011**	**Change**
Alberta Government Public Services	Estimated person-years worked	30,053	**30,904**	2.8%
	Lost-time claims	332	**360**	8.4%
	Lost-time claim rate	1.10	**1.16**	0.06
	Modified work claims	208	**203**	-2.4%
	Disabling injury claims	437	**467**	6.9%
	Disabling injury rate	1.45	**1.51**	0.06
Education, Museums and Libraries	Estimated person-years worked	85,903	**84,566**	-1.6%
	Lost-time claims	666	**683**	2.6%
	Lost-time claim rate	0.78	**0.81**	0.03
	Modified work claims	749	**780**	4.1%
	Disabling injury claims	1,022	**1,056**	3.3%
	Disabling injury rate	1.19	**1.25**	0.06
Health Care Centres	Estimated person-years worked	75,492	**77,843**	3.1%
	Lost-time claims	2,103	**2,411**	14.6%
	Lost-time claim rate	2.79	**3.10**	0.31
	Modified work claims	1,267	**1,276**	0.7%
	Disabling injury claims	2,367	**2,697**	13.9%
	Disabling injury rate	3.14	**3.46**	0.32
Health & Social Services	Estimated person-years worked	60,160	**60,668**	0.8%
	Lost-time claims	1,535	**1,732**	12.8%
	Lost-time claim rate	2.55	**2.85**	0.30
	Modified work claims	1,429	**1,477**	3.4%
	Disabling injury claims	2,083	**2,309**	10.8%
	Disabling injury rate	3.46	**3.81**	0.35

Table 5.6 (Continued)
Public Administration, Education and Health Services Sector – Alberta: 2010 and 2011

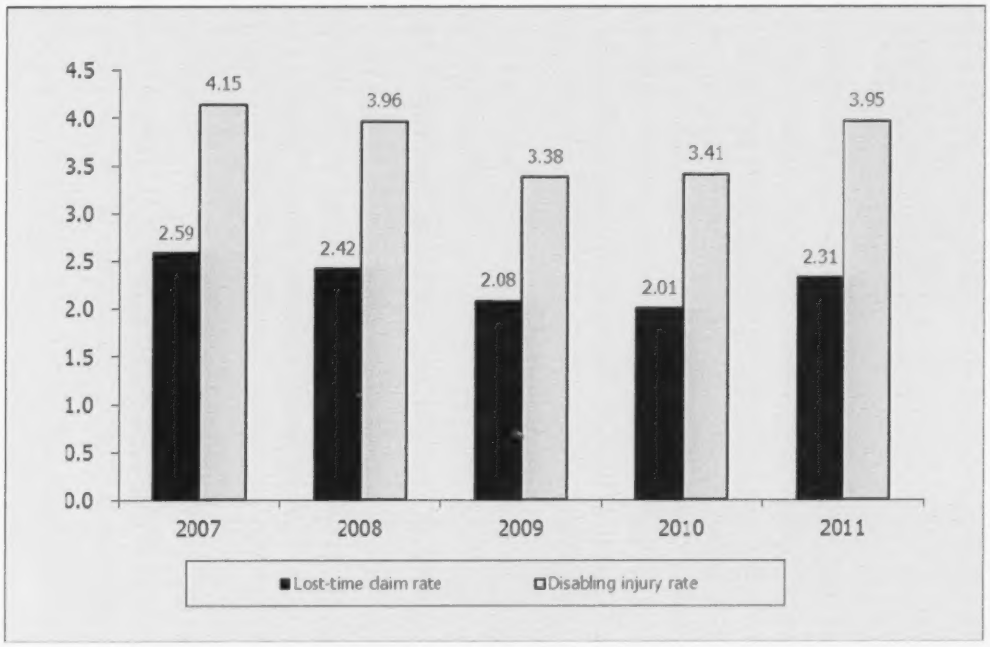
Sub-Sector		2010	2011	Change
Municipal Services	Estimated person-years worked	57,395	**58,194**	1.4%
	Lost-time claims	1,488	**1,521**	2.2%
	Lost-time claim rate	2.59	**2.61**	0.02
	Modified work claims	1,474	**1,502**	1.9%
	Disabling injury claims	2,185	**2,247**	2.8%
	Disabling injury rate	3.81	**3.86**	0.05
Other Public Administration	Estimated person-years worked	1,339	**1,534**	14.5%
	Lost-time claims	16	**9**	-43.8%
	Lost-time claim rate	1.19	**0.59**	-0.60
	Modified work claims	14	**27**	92.9%
	Disabling injury claims	19	**29**	52.6%
	Disabling injury rate	1.42	**1.89**	0.47

Data Source: WCB Data. Prepared by Research and Analysis

Transportation, Communication and Utilities

The Transportation, Communication and Utilities sector consists of various modes of transportation (air, rail, truck, bus, taxi cab and limousine services), assorted methods of communication and entertainment (radio, television, movies, live theatre, telecommunications and cable vision) and utilities (electricity, natural gas, garbage collection, recycling and disposal).

Chart 5.7
Transportation, Communication and Utilities Sector – Injury Rates: 2007-2011



Data Source: WCB Data, Prepared by Research and Analysis

Trends and Analysis

The lost-time claim rate increased by 0.30 in 2011, to 2.31 per 100 person-years worked. The disabling injury rate was 3.95 in 2011 (see Table 5.7).

In this sector, 8.8% and 13.5% of the lost-time claims and disabling injury claims were from young workers aged 15 to 24, who composed 9.6% of those in employment[11] (see Table 6.2). Men accounted for 82.7% of lost-time claims and 82.8% of disabling injury claims and 76.6% of those in employment. Truck drivers led all occupations, accounting for 32.3% of the total disabling injury claims. This

[11] Statistics Canada's Labour Force Survey (2011 Historical Review) for the Transportation and Warehousing industry. For more information, see Appendix A.

was followed by material handlers, and shippers and receivers, with 6.7% and 4.4% of the disabling injury claims respectively.

The leading nature of injury or disease was sprains, strains and tears, accounting for 57.8% of all disabling injury claims. This was followed by surface wounds and bruises, and other traumatic injuries and diseases, accounting for 11.9% and 11.3% of disabling injuries respectively. The back (including spinal cord) was the body part most affected by disabling work incidents, accounting for 25.2% of injuries. Other trunk accounted for 16.6% of the disabling injury claims.

The leading source of injury was structures and surfaces, at 19.5%, followed by person-ill or injured worker, 18.2%, and vehicle, 16.6%. Overexertion was the leading type of event accounting for 24.0% of disabling injuries, then bodily reaction, 14.8%, and fall on same level, 13.6%.

The median days lost due to injuries and diseases for the Transportation, Communication and Utilities sector remained at 10. The average days lost remained at 30 days per claim in 2011.

Sub-Sector Analysis:

- In 2011, Trucking Services, the largest sub-sector accounting for 40.7% of the person-years worked, saw an increase in the lost-time claim rate of 0.56. This was a result of an increase in lost-time claims of 11.0%.
- The Utilities sub-sector had the lowest lost-time claim rate of 0.40 per 100 person-years worked. The Telecommunications, Closed Circuit TV and Cablevision sub-sector had the lowest disabling injury rate at 1.22 per 100 person-years worked.
- The Air Services sub-sector had the highest lost-time claim rate at 3.56 per 100 person-years worked. The Other Transportation, Communication and Utilities sub-sector had the highest disabling injury rate at 9.38 per 100 person-years worked.

Table 5.7
Transportation, Communication and Utilities Sector – Alberta: 2010 and 2011

Industry Sector		2010	2011	Change
Transportation, Communication, and Utilities	Estimated person-years worked	132,882	**127,589**	-4.0%
	Lost-time claims	2,668	**2,953**	10.7%
	Lost-time claim rate	2.01	**2.31**	0.30
	Modified work claims	3,206	**3,554**	10.9%
	Disabling injury claims	4,529	**5,039**	11.3%
	Disabling injury rate	3.41	**3.95**	0.54
Sub-Sector		**2010**	**2011**	**Change**
Air Services	Estimated person-years worked	12,398	**11,641**	-6.1%
	Lost-time claims	361	**414**	14.7%
	Lost-time claim rate	2.91	**3.56**	0.65
	Modified work claims	272	**348**	27.9%
	Disabling injury claims	465	**538**	15.7%
	Disabling injury rate	3.75	**4.62**	0.87
Bus, Taxi and Limousine Services	Estimated person-years worked	7,223	**6,812**	-5.7%
	Lost-time claims	138	**157**	13.8%
	Lost-time claim rate	1.91	**2.30**	0.39
	Modified work claims	219	**219**	0.0%
	Disabling injury claims	280	**296**	5.7%
	Disabling injury rate	3.88	**4.35**	0.47
Garbage Collection, Recycle, Disposal and Towing Services	Estimated person-years worked	6,370	**6,258**	-1.8%
	Lost-time claims	216	**218**	0.9%
	Lost-time claim rate	3.39	**3.48**	0.09
	Modified work claims	326	**325**	-0.3%
	Disabling injury claims	401	**420**	4.7%
	Disabling injury rate	6.30	**6.71**	0.41
Radio, TV, Movies, Live Theatre and Ballet	Estimated person-years worked	6,712	**6,157**	-8.3%
	Lost-time claims	51	**67**	31.4%
	Lost-time claim rate	0.76	**1.09**	0.33
	Modified work claims	46	**51**	10.9%
	Disabling injury claims	78	**86**	10.3%
	Disabling injury rate	1.16	**1.40**	0.24

Table 5.7 (continued)
Transportation, Communication and Utilities Sector – Alberta: 2010 and 2011

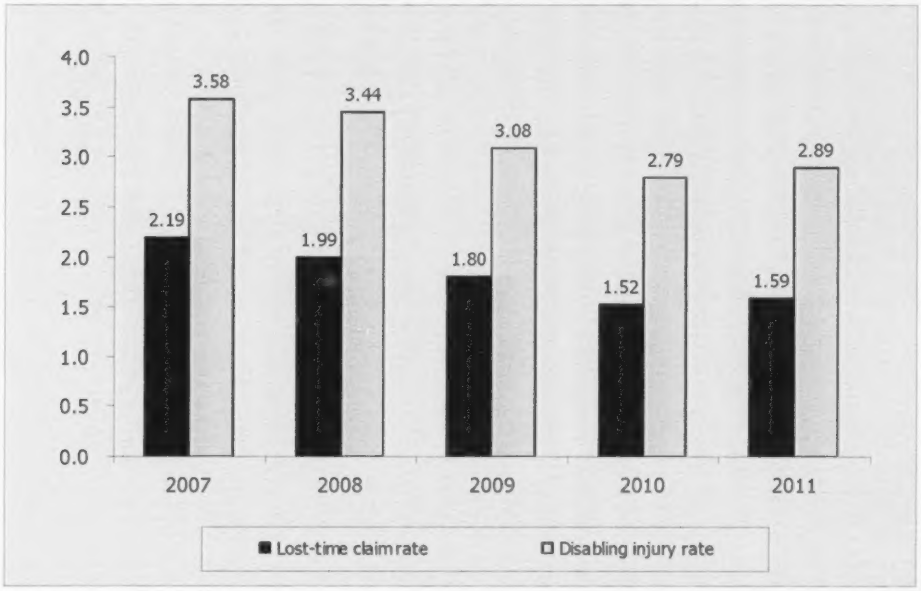
Sub-Sector		2010	2011	Change
Rail Services	Estimated person-years worked	7,770	**6,959**	-10.4%
	Lost-time claims	102	**111**	8.8%
	Lost-time claim rate	1.31	**1.59**	0.28
	Modified work claims	100	**73**	-27.0%
	Disabling injury claims	143	**139**	-2.8%
	Disabling injury rate	1.84	**2.00**	0.16
Telecommunications, Closed Circuit TV and Cablevision	Estimated person-years worked	14,781	**14,674**	-0.7%
	Lost-time claims	80	**78**	-2.5%
	Lost-time claim rate	0.54	**0.53**	-0.01
	Modified work claims	133	**157**	18.0%
	Disabling injury claims	167	**179**	7.2%
	Disabling injury rate	1.13	**1.22**	0.09
Trucking Services	Estimated person-years worked	56,265	**51,921**	-7.7%
	Lost-time claims	1,550	**1,721**	11.0%
	Lost-time claim rate	2.75	**3.31**	0.56
	Modified work claims	1,467	**1,721**	17.3%
	Disabling injury claims	2,307	**2,656**	15.1%
	Disabling injury rate	4.10	**5.12**	1.02
Utilities	Estimated person-years worked	15,885	**17,962**	13.1%
	Lost-time claims	66	**71**	7.6%
	Lost-time claim rate	0.42	**0.40**	-0.02
	Modified work claims	184	**207**	12.5%
	Disabling injury claims	205	**237**	15.6%
	Disabling injury rate	1.29	**1.32**	0.03
Other	Estimated person-years worked	5,478	**5,204**	-5.0%
	Lost-time claims	104	**116**	11.5%
	Lost-time claim rate	1.90	**2.23**	0.33
	Modified work claims	459	**453**	-1.3%
	Disabling injury claims	483	**488**	1.0%
	Disabling injury rate	8.82	**9.38**	0.56

Data Source: WCB Data. Prepared by Research and Analysis

Wholesale and Retail

The Wholesale and Retail sector includes wholesale operations, food and beverage stores, department stores, furniture and appliance stores, home improvement centres, the sale and service of automobiles, trailers, industrial and farm equipment, and office and medical equipment.

Chart 5.8
Wholesale and Retail Sector – Injury Rates: 2007-2011



Data Source: WCB Data, Prepared by Research and Analysis

Trends and Analysis

The 2011 lost-time claim rate of 1.59 per 100 person-years worked was an increase of 0.07 from 2010. The disabling injury rate increased by 0.10 to 2.89 per 100 person-years worked in 2011.

In this sector, men accounted for 61.1% of the lost-time claims in 2011 and 62.7% of disabling injury claims. Men accounted for 53.5% of those in employment[12]. Young workers accounted for 19.7% of the lost-time claims, 22.8% of the disabling injury claims and 25.9% of those in employment (see Table 6.2). Retail salespersons and sales clerks, grocery clerks and store shelf stockers were the occupation groups with the highest number of disabling injury claims, at 16.4% and 11.1% respectively.

[12] Statistics Canada's Labour Force Survey (2011 Historical Review) for the Wholesale and Retail Trade industry. For more information, see Appendix A.

The leading nature of injury or disease was sprains, strains and tears, accounting for 54.5% of all disabling injury claims. This was followed by surface wounds and bruises, 12.7%, and other traumatic injuries and diseases, 12.5%. The back (including spinal cord) was the body part most affected by disabling work incidents in this sector, accounting for 25.3% of injuries. Other trunk accounted for 14.1% of the disabling injury claims, followed by and wrists and hands, 10.3%, and fingers and fingernails, 9.2%.

The leading source of injury was containers, 19.5%, followed by person-ill or injured worker, 17.6%, structures and surfaces, 15.0% and parts and materials, 12.3%. Overexertion was the leading type of event accounting for 8.5% of disabling injuries, followed by struck by object, 15.7%.

In this sector the median days lost decreased to five in 2011 from six in 2010. The average days lost decreased to 16 days per claim from 30 in 2010.

Sub-Sector Analysis:

- The Yard and Home Improvement Centres sub-sector had the highest lost-time claim rate at 3.00 per 100 person-years worked. This was followed by the Food and Beverage Stores sub-sector at 2.44. The Yard and Home Improvement Centres sub-sector had the highest disabling injury rate at 5.41 per 100 person-years worked.
- The Office, Medical and Entertainment Equipment sub-sector displayed the lowest lost-time claim and disabling injury rates at 0.32 and 0.48 per 100 person-years worked respectively.

Table 5.8
Wholesale and Retail Sector – Alberta: 2010 and 2011

Industry Sector		2010	2011	Change
Wholesale and Retail	Estimated person-years worked	309,357	**319,230**	3.2%
	Lost-time claims	4,710	**5,061**	7.5%
	Lost-time claim rate	1.52	**1.59**	0.07
	Modified work claims	6,977	**7,426**	6.4%
	Disabling injury claims	8,626	**9,212**	6.8%
	Disabling injury rate	2.79	**2.89**	0.10
Sub-Sector		**2010**	**2011**	**Change**
Automobiles, Sport Vehicles, Small Engines and Trailers	Estimated person-years worked	49,129	**49,501**	0.8%
	Lost-time claims	835	**932**	11.6%
	Lost-time claim rate	1.70	**1.88**	0.18
	Modified work claims	868	**1,048**	20.7%
	Disabling injury claims	1,276	**1,421**	11.4%
	Disabling injury rate	2.60	**2.87**	0.27
Food and Beverage Stores	Estimated person-years worked	51,693	**52,319**	1.2%
	Lost-time claims	1,318	**1,275**	-3.3%
	Lost-time claim rate	2.55	**2.44**	-0.11
	Modified work claims	2,090	**1,990**	-4.8%
	Disabling injury claims	2,467	**2,354**	-4.6%
	Disabling injury rate	4.77	**4.50**	-0.27
Industrial, Farm Equipment and Products	Estimated person-years worked	54,724	**58,563**	7.0%
	Lost-time claims	512	**613**	19.7%
	Lost-time claim rate	0.94	**1.05**	0.11
	Modified work claims	812	**1,059**	30.4%
	Disabling injury claims	1,045	**1,318**	26.1%
	Disabling injury rate	1.91	**2.25**	0.34
Office, Medical and Entertainment Equipment	Estimated person-years worked	24,046	**27,436**	14.1%
	Lost-time claims	78	**89**	14.1%
	Lost-time claim rate	0.32	**0.32**	0.00
	Modified work claims	88	**93**	5.7%
	Disabling injury claims	120	**131**	9.2%
	Disabling injury rate	0.50	**0.48**	-0.02

Table 5.8 (continued)
Wholesale and Retail Sector – Alberta: 2010 and 2011

Sub-Sector		2010	2011	Change
Yard and Home Improvement Centres	Estimated person-years worked	12,779	**13,573**	6.2%
	Lost-time claims	358	**407**	13.7%
	Lost-time claim rate	2.80	**3.00**	0.20
	Modified work claims	513	**590**	15.0%
	Disabling injury claims	615	**734**	19.3%
	Disabling injury rate	4.81	**5.41**	0.60
Wholesale Operations	Estimated person-years worked	27,062	**28,274**	4.5%
	Lost-time claims	333	**403**	21.0%
	Lost-time claim rate	1.23	**1.43**	0.20
	Modified work claims	579	**742**	28.2%
	Disabling injury claims	689	**838**	21.6%
	Disabling injury rate	2.55	**2.96**	0.41
Other	Estimated person-years worked	89,924	**89,563**	-0.4%
	Lost-time claims	1,276	**1,342**	5.2%
	Lost-time claim rate	1.42	**1.50**	0.08
	Modified work claims	2,027	**1,904**	-6.1%
	Disabling injury claims	2,414	**2,416**	0.1%
	Disabling injury rate	2.68	**2.70**	0.02

Data Source: WCB Data, Prepared by Research and Analysis

DEMOGRAPHICS OF INJURED WORKERS

Age

In Alberta, workplace injuries by the age of the injured worker seem to mimic the employment distribution by age. In 2011, young workers (those aged 15 to 24) accounted for 14.8% of lost-time claims and 18.3% of disabling injury claims, while accounting for 15.1% of those in employment. Similarly, workers aged 45 to 54 years accounted for 24.5% of lost-time claims and 21.5% of disabling injury claims and 22.4% of those in employment (see Table 6.1 and Chart 6.1).

Young workers lost a median of 5 days due to workplace injury or disease, in comparison to workers age 55 years and older that lost a median of nine days.

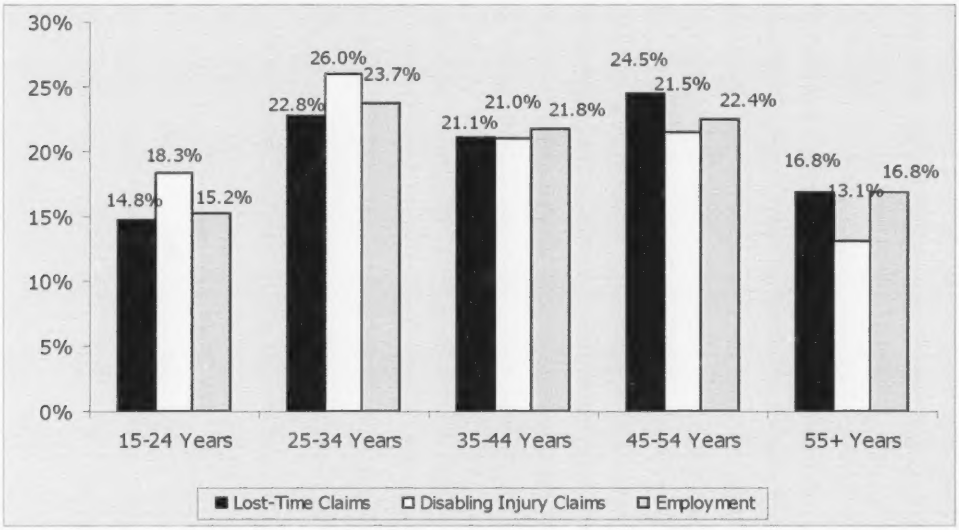
Each age group had different patterns of injury across industry sectors. However, in most industry sectors young workers incurred a higher proportion of injuries than the average. Young workers accounted for 14.8% of workplace injuries in all industries but accounted for 18.1% of injuries in the Mining and Petroleum Development sector (see Table 6.2).

Table 6.1
Lost-Time Claims and Disabling injury claims by Age – Alberta: 2010 and 2011

Age (Years)	2010				2011			
	Lost-Time Claims	%	Disabling Injury Claims	%	Lost-Time Claims	%	Disabling Injury Claims	%
Under 15	0	0.0%	5	0.0%	**3**	**0.0%**	**12**	**0.0%**
15 - 19	929	3.8%	2,146	4.7%	**1,104**	**4.2%**	**2525**	**5.0%**
20 - 24	2,652	10.9%	6,121	13.3%	**2,834**	**10.6%**	**6750**	**13.3%**
25 - 34	5,660	23.3%	12,071	26.2%	**6,062**	**22.8%**	**13173**	**26.0%**
35 - 44	5,368	22.1%	9,990	21.6%	**5,615**	**21.1%**	**10627**	**21.0%**
45 - 54	5,922	24.3%	10,068	21.8%	**6,523**	**24.5%**	**10875**	**21.5%**
55+	3,811	15.7%	5,747	12.5%	**4,478**	**16.8%**	**6643**	**13.1%**
Unspecified	1	N/A	3	N/A	**10**	**N/A**	**17**	**N/A**
Total	24,343	100.0%	46,151	100.0%	**26,629**	**100.0%**	**50,622**	**100.0%**

*Claims with unspecified age have been removed from proportions.
Data Source: WCB Data, Prepared by Research and Analysis

Chart 6.1
Lost-Time Claims, Disabling Injury Claims and Employment by Age Groups – Alberta: 2011



Data Source: WCB Data, Prepared by Research and Analysis; Statistics Canada's Labour Force Survey (2011 Historical Review)

Table 6.2
Lost-Time Claims, Disabling Injury Claims and Employment by Major Industry Sector – Young Workers (15-24 years), Alberta: 2011

Major Industry Sector	Lost-Time Claims	Disabling Injury Claims	Employment
Agriculture and Forestry	14.7%	16.3%	10.5%
Business, Personal and Professional Services	22.3%	23.5%	18.7%
Construction and Construction Trade Services	18.7%	21.2%	15.2%
Manufacturing, Processing and Packaging	14.9%	17.8%	8.8%
Mining and Petroleum Development	18.1%	22.7%	11.8%
Public Administration, Education and Health Services	7.0%	8.1%	7.8%
Transportation, Communication and Utilities	8.8%	13.5%	9.6%
Wholesale and Retail	19.7%	22.8%	25.9%
All Industries	**14.8%**	**18.3%**	**15.1%**

Data Source: WCB Data, Prepared by Research and Analysis

Job Tenure

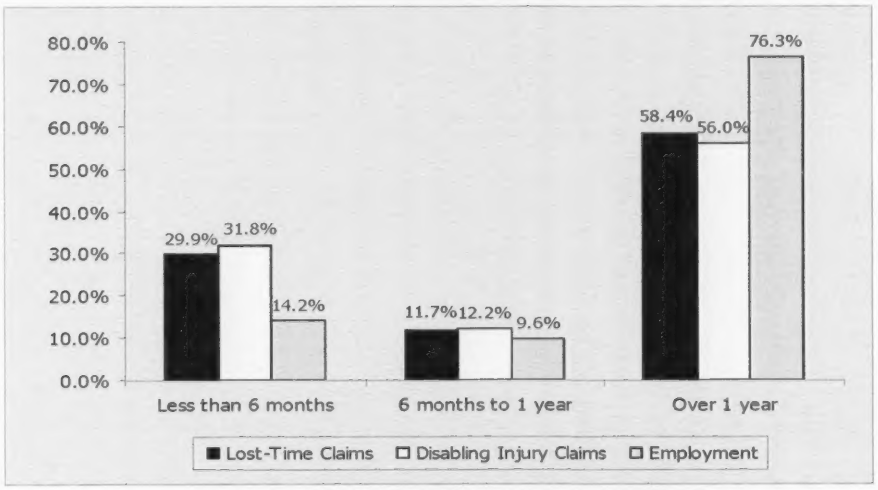
Job tenure is the length of time a worker has had consistent work with the same employer. Workers employed for less than six months account for 29.9% of lost-time claims and 31.8% disabling injury claims while accounting for 14.2% of those in employment. Conversely, workers employed for more than a year accounted for 58.4% of lost-time claims and 56.0% of disabling injury claims while accounting for the majority of those employed, 76.3% (see Chart 6.2). New workers, therefore, are more likely to be involved in a workplace incident.

Table 6.3
Proportion* of Lost-Time Claims, Disabling Injury Claims and Employment by Tenure – Alberta: 2011

Tenure	Lost-Time Claims	%	Disabling Injury Claims	%	Employment
Less than 6 months	6,634	29.9%	11,985	31.8%	14.2%
6 months to 1 year	2,607	11.7%	4,594	12.2%	9.6%
Over 1 year	12,957	58.4%	21,125	56.0%	76.3%
Unspecified	4,431	N/A	12,918	N/A	0.0%
Total	26,629	100.0%	50,622	100.0%	100.0%

*Claims with unspecified tenure data have been removed from proportions.
Data Source: WCB Data, Prepared by Research and Analysis; Statistics Canada's Labour Force Survey (2011 Historical Review)

Chart 6.2
Proportion of Lost-Time Claims, Disabling Injury Claims and Employment by Tenure – Alberta: 2011



Data Source: WCB Data, Prepared by Research and Analysis; Statistics Canada's Labour Force Survey (2011 Historical Review)

Hourly Wage

Injuries were more prevalent in wage lower than $25.00-29.99 groups than in higher wage groups.

Chart 6.3
Proportion of Lost-Time Claims* and Employment by Hourly Wage – Alberta: 2011

*Claims with unspecified wage data have been removed from proportions.
Data Source: WCB Data, Prepared by Research and Analysis; Statistics Canada, Labour Force Survey (Microdata Files)

Gender

In 2011, men accounted for 64.0% of lost-time claims and 70.6% of disabling injury claims while representing 55.1% of those employed in Alberta (see Chart 6.4). Women accounted for 44.9% of those employed in 2011, yet accounted for 36.0% of the lost-time claims and 29.4% of the disabling injury claims. The trend however, is reduced when we compare the proportions of lost-time claims and disabling injury claims to the total hours worked by each gender (see Chart 6.4).

Men represented the majority of workers in higher risk industry sectors: Construction and Construction Trade Services, Agriculture and Forestry, Transportation, Communication and Utilities, and Manufacturing, Processing and Packaging, and submitted more claims. More women than men had lost-time claims in sectors where women made up a larger proportion of the labour force. In the Public Administration, Education and Health Services sector, women accounted for 67.2% of lost-time claims, 64.4% of disabling injury claims and 73.7% of those in employment. In the Business, Personal and Professional Services sector, women accounted for 53.8% of lost-time claims, 53.0% of disabling injury claims and 49.6% of those in employment[13].

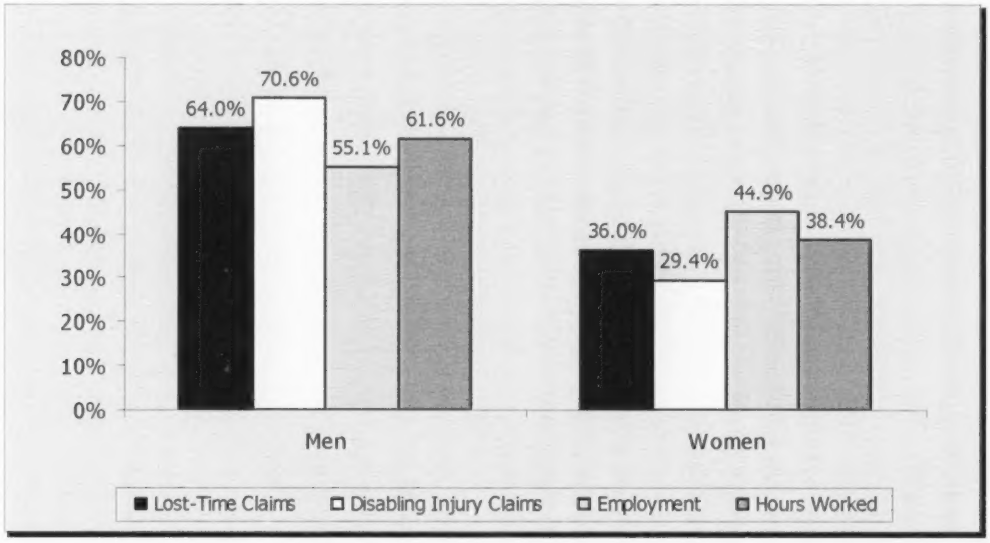
[13] Statistics Canada's Labour Force Survey (2011 Historical Review). For further information see Appendix A.

Table 6.4
Lost-Time Claims and Disabling Injury Claims by Gender – Alberta: 2010 and 2011

Gender	2010				2011			
	Lost-Time Claims	%	Disabling Injury Claims	%	Lost-Time Claims	%	Disabling Injury Claims	%
Men	15,736	64.7%	32,557	70.7%	**16,798**	**63.1%**	**34,932**	**69.0%**
Women	8,601	35.3%	13,482	29.3%	**9,441**	**35.5%**	**14,544**	**28.7%**
Unspecified	6	N/A	112	N/A	**390**	**1.5%**	**1,146**	**2.3%**
Total	**24,343**	**100.0%**	**46,151**	**100.0%**	**26,629**	**100.0%**	**50,622**	**100.0%**

* Claims with unspecified category has been included in these calculations.
Data Source: WCB Data, Prepared by Research and Analysis.

Chart 6.4
Proportion of Lost-Time Claims, Disabling Injury Claims and Employment by Gender – Alberta: 2011



Data Source: WCB Data, Prepared by Research and Analysis; Statistics Canada's Labour Force Survey (2011 Historical Review)

Occupation

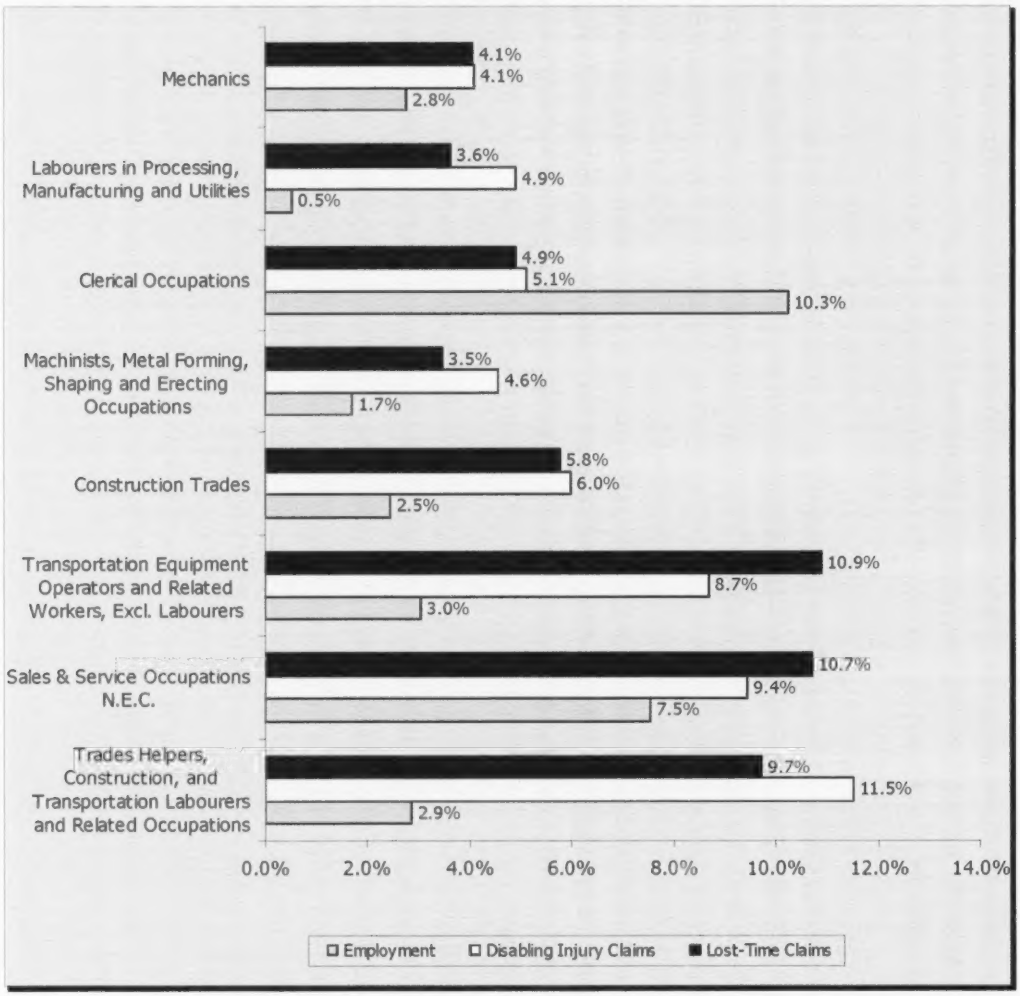
Occupation describes the kind of work performed regardless of the industry.

In 2011, trades helpers, construction, and transportation labourers and related occupations had the largest number of injuries and diseases with time away from

work (9.7% of total lost-time claims; 11.5% of disabling injury claims). This occupation group accounted for only 2.9% of those in employment in Alberta.[14] By contrast, the clerical occupations accounted for 4.9% and 5.1% of the total lost-time claims and disabling injury claims, respectively, yet they accounted for 10.3% of those in employment in 2011 (see Chart 6.5).

Chart 6.5

Proportion of Lost-Time Claims, Disabling Injury Claims and Employment by Selected Occupation Group[15] – Alberta: 2011



Data Source: WCB Data, Prepared by Research and Analysis; Statistics Canada's Labour Force Survey (Microdata files)

[14] Statistics Canada's Labour Force Survey (Microdata files). For further information see Appendix A.

[15] Occupation groups were selected by highest proportion of disabling injury. A full comparison by occupation group (48 occupation groups in total) is available on request.

SECTION 7

INJURY AND DISEASE ANALYSIS

Overexertion was the most common cause for lost-time claims in all industries. Sprains, strains and tears continued to be the leading nature of injury with the trunk being the most commonly injured body part.

Nature of Injury or Disease

Note 7.1
Throughout this section, the classifications used are based on the Canadian Standards Association (CSA) standards for categorizing occupational injury and disease information.

In 2011, 92.8% of lost-time claims and 94.7% of disabling injury claims were traumatic injuries and disorders. The four most common traumatic injuries and disorders were sprains, strains and tears, surface wounds and bruises, open wounds and other traumatic injuries and disorders (see Table 7.1).

A large number of sprains, strains and tears disabling injury claims resulted in injuries to the back (including spine and spinal cord), 37.2%, and other trunk (for example, shoulder or chest), 17.3%. This nature of injury also resulted in a high proportion of injuries to the legs, 11.3% and ankles and feet, 10.3%. Overexertion and bodily reaction were the leading types of event connected with the sprains, strains and tears disabling injury claims, accounting for 39.5% and 22.6% of the total claims respectively.

The next leading nature of injury, after sprains, strains and tears, was surface wounds and bruises, accounting for 11.1% of the lost-time claims and 12.3% of the disabling injury claims. The most common body categories associated with surface wounds and bruises claims were the legs, 14.5%, eyes, 12.8%, other trunk, 12.4%, ankles, 9.0% and wrists, 8.9%.

Structures and surfaces were the highest sources of injury connected with surface wounds and bruises (27.5% of claims) followed by parts and materials (16.6%), other sources (14.7%), and vehicles (9.6%). Struck by object, 34.4%, and fall on same level, 21.6%, were the leading types of event associated with surface wound claims.

Table 7.1
Nature of Injury or Disease – Alberta: 2011

Nature of Injury	Lost-Time Claims	%	Disabling Injury Claims	%
Traumatic Injuries and Disorders	**24,717**	**92.8%**	**47,926**	**94.7%**
Sprains, Strains and Tears	13,150	49.4%	25,721	50.8%
Surface Wounds and Bruises	2,964	11.1%	6,241	12.3%
Fractures and Dislocations	2,556	9.6%	3,888	7.7%
Open Wounds	1,999	7.5%	5,048	10.0%
Burns	709	2.7%	1,088	2.1%
Other Traumatic Injuries and Disorders	3,339	12.5%	5,940	11.7%
Systemic Diseases and Disorders	**1,378**	**5.2%**	**2,061**	**4.1%**
Infectious and Parasitic Disorders	**291**	**1.1%**	**291**	**0.6%**
Neoplasms, Tumors and Cancer	**15**	**<0.1%**	**15**	**<0.1%**
Symptoms, Signs and Ill-Defined Conditions	**84**	**0.3%**	**136**	**0.3%**
Multiple Diseases, Conditions and Disorders	**4**	**<0.1%**	**4**	**<0.1%**
Other Diseases, Conditions and Disorders	**108**	**0.4%**	**121**	**0.2%**
Nature of Injury - Unknown	**32**	**0.1%**	**68**	**0.1%**
Total	**26,629**	**100.0%**	**50,622**	**100.0%**

Data Source: WCB Data. Prepared by Research and Analysis

Part of Body Injured

The trunk was the most commonly injured body part, accounting for 36.2% of disabling injury claims and 37.9% of lost-time claims in 2011 (see Table 7.2). This was followed by injuries to the upper extremities, 27.7% of the disabling injury claims, and lower extremities, 19.8%.

The majority of all back injuries resulted from overexertion, 47.0%, or bodily reaction, 14.6%.

The upper extremities accounted for 27.7% of disabling injury claims in 2011. The two largest proportions of claims were for open wounds and sprains, strains and tears, 29.6% and 25.5%. Being struck by an object, 23.8%, and caught in objects, 17.0%, were the two leading causes of disabling injury claims to the upper extremities.

Over half of the injuries and diseases to the lower extremities included sprains, strains and tears, 56.7%. Injuries to the lower extremities resulted most often from bodily reaction, 33.9%, and being struck by objects, 16.3%.

Table 7.2
Part of Body Injured – Alberta: 2011

Part of Body Injured	Lost-Time Claims	%	Disabling Injury Claims	%
Trunk	**10,090**	**37.9%**	**18,323**	**36.2%**
Back, Including Spine, Spinal Cord	6,134	23.0%	11,008	21.7%
Other Trunk	3,956	14.9%	7,315	14.5%
Upper Extremities	**5,551**	**20.8%**	**13,999**	**27.7%**
Finger(s), Fingernail(s)	1,817	6.8%	5,399	10.7%
Wrist(s) and Hand(s) Except Finger(s)	2,235	8.4%	5,229	10.3%
Other Upper Extremities	1,499	5.6%	3,371	6.7%
Lower Extremities	**5,484**	**20.6%**	**10,046**	**19.8%**
Leg(s)	2,724	10.2%	4,933	9.7%
Ankle(s) and Foot (Feet) Except Toes	2,468	9.3%	4,661	9.2%
Other Lower Extremities	292	1.1%	452	0.9%
Head	**2,437**	**9.2%**	**3,576**	**7.1%**
Other Head Parts	1,728	6.5%	2,311	4.6%
Eye(s)	709	2.7%	1,265	2.5%
Multiple Body Parts	**2,053**	**7.7%**	**3,069**	**6.1%**
Neck, Including Throat	**558**	**2.1%**	**1,045**	**2.1%**
Body Systems	**445**	**1.7%**	**542**	**1.1%**
Part of Body - Unknown	**9**	**<0.1%**	**17**	**<0.1%**
Other Body Parts	**2**	**<0.1%**	**5**	**<0.1%**
Total	**26,629**	**100.0%**	**50,622**	**100.0%**

Data Source: WCB Data, Prepared by Research and Analysis

Source of Injury or Disease

The two primary sources of lost-time claims were persons, plants, animals and minerals[16], 26.4%, and structures and surfaces,[17] 20.4% (see Table 7.3). They also accounted for 25.2% and 17.3% of disabling injury claims respectively. Parts and materials accounted for 10.4% of lost-time claims and 13.6% of the disabling injury claims.

Persons, plants, animals and minerals was the leading source of injury in all sectors, with 52.0% of the disabling injury claims the result of bodily reaction. Repetitive motion also accounted for 15.1% of these claims. The leading nature of injury connected with the persons, plants, animals and minerals claims was sprains, strains and tears, 73.2%, with the back (including spine and spinal cord) the leading part of body injured, 27.2%.

[16] Persons, plants, animals and minerals include living organisms and their products as well as raw, metallic and non-metallic minerals (examples: animals and animal products, asbestos, etc).

[17] Structures and surfaces include the floor or the ground resulting in sprains, strains and tears, fractures and dislocations and surface wounds and bruises. This contact is usually the result of a fall, either from a height or on the same level.

Table 7.3
Source of Injury or Disease – Alberta: 2011

Source of Injury	Lost-Time Claims	%	Disabling Injury Claims	%
Persons, Plants, Animals and Minerals	**7,041**	**26.4%**	**12,742**	**25.2%**
Person-Injured or Ill Worker*	4,576	17.2%	9,342	18.5%
Person-Other Than Injured or Ill Worker**	1,505	5.7%	1,969	3.9%
Minerals-Metallic or Nonmetallic (except fuel)	93	0.3%	202	0.4%
Other Persons, Plants, Animals & Minerals	867	3.3%	1,229	2.4%
Structures and Surfaces	**5,432**	**20.4%**	**8,751**	**17.3%**
Parts and Materials	**2,774**	**10.4%**	**6,869**	**13.6%**
Containers* **	**2,610**	**9.8%**	**5,335**	**10.5%**
Vehicles	**2,302**	**8.6%**	**3,642**	**7.2%**
Tools, Instruments and Equipment	**2,074**	**7.8%**	**4,884**	**9.6%**
Hand Tools – Non powered	862	3.2%	2,400	4.7%
Hand Tools - Powered	235	0.9%	536	1.1%
Other Tools and Equipment	977	3.7%	1,948	3.8%
Machinery	**1,256**	**4.7%**	**2,548**	**5.0%**
Furniture and Fixtures	**810**	**3.0%**	**1,454**	**2.9%**
Chemicals and Chemical Products	**364**	**1.4%**	**555**	**1.1%**
Other Sources	**1,674**	**6.3%**	**3,058**	**6.0%**
Source of Injury - Unknown	**292**	**1.1%**	**784**	**1.5%**
Total	**26,629**	**100.0%**	**50,622**	**100.0%**

*Person-injured or ill worker: classifies self-injured person, bodily conditions, and self-induced bodily motion injuries.
**Person-other than injured or ill worker: classifies workplace injuries or illnesses inflicted by family members as well as non-family relations, including co-workers, former co-workers, and patients.
***Containers: classifies receptacles that are commonly used to hold, store or carry materials (examples: dishes, cups and glasses, luggage, etc.).

Data Source: WCB Data, Prepared by Research and Analysis

Type of Event or Exposure

In 2011, 41.5% and 43.4% of the lost-time and disabling injury claims were due to bodily reaction or exertion. Overexertion accounted for approximately one fifth of disabling injury claims and lost-time claims.

Of the overexertion injuries, 88.0% were sprains, strains and tears. Containers were the main source of injury accounting for 30.0% of the overexertion disabling injury claims. Injury to the back was the most frequently reported part of body injured due to overexertion, at 48.9%.

Table 7.4
Type of Event or Exposure – Alberta: 2011

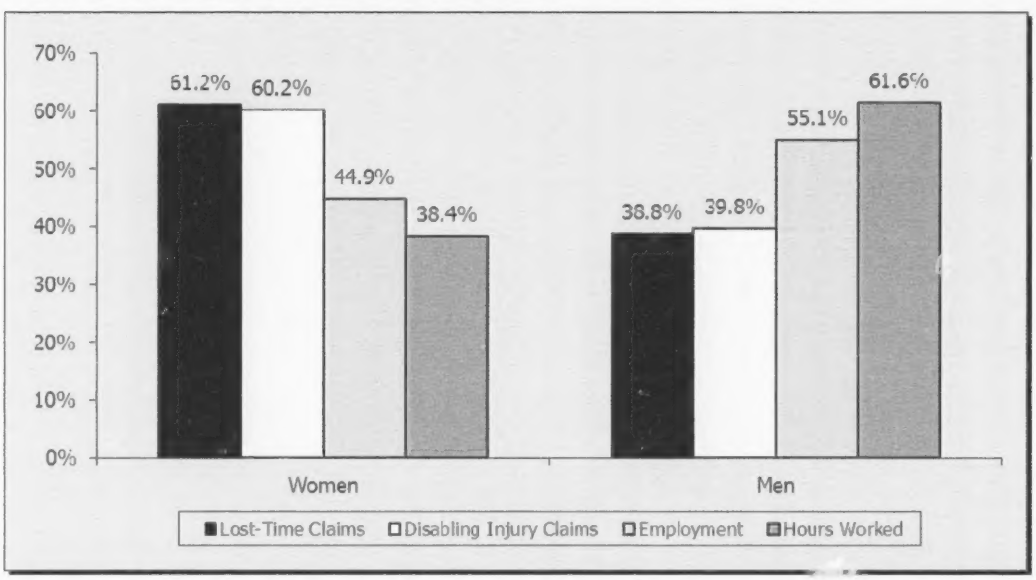
Type of Event or Exposure	Lost-Time Claims	%	Disabling Injury Claims	%
Bodily Reaction or Exertion	**11,054**	**41.5%**	**21,991**	**43.4%**
Overexertion	5,940	22.3%	11,529	22.8%
Bodily Reaction*	3,394	12.7%	6,625	13.1%
Repetitive Motion	809	3.0%	1,930	3.8%
Other Bodily Reaction/Exertion	911	3.4%	1,907	3.8%
Contact with Objects or Equipment	**6,044**	**22.7%**	**14,154**	**28.0%**
Struck by Object	3,143	11.8%	7,015	13.9%
Struck against Object	1,151	4.3%	2,631	5.2%
Caught in Object	1,025	3.8%	2,811	5.6%
Rubbed or Abraded	268	1.0%	556	1.1%
Other Contact with Object/Equipment	457	1.7%	1,141	2.3%
Falls	**5,454**	**20.5%**	**8,594**	**17.0%**
Fall on Same Level	3,726	14.0%	5,972	11.8%
Fall to Lower Level	1,416	5.3%	2,091	4.1%
Other Falls	312	1.2%	531	1.0%
Exposure to Harmful Substances	**1,903**	**7.1%**	**2,593**	**5.1%**
Transportation Accidents	**1,476**	**5.5%**	**2,120**	**4.2%**
Assaults and Violent Acts	**529**	**2.0%**	**724**	**1.4%**
Assaults and Violent Acts by Person(s)	420	1.6%	546	1.1%
Other Assaults and Violent Acts	109	0.4%	178	0.4%
Fires and Explosions	**67**	**0.3%**	**113**	**0.2%**
Other Events or Exposures	**2**	**0.0%**	**2**	**<0.1%**
Type of Event - Unknown	**100**	**0.4%**	**331**	**0.7%**
Total	**26,629**	**100.0%**	**50,622**	**100.0%**

*Bodily reaction: injuries or illnesses resulting from a single incident of free bodily motion that imposed stress or strain on some part of the body.
Data Source: WCB Data, Prepared by Research and Analysis

Workplace Violence

It is difficult to capture the actual number of violent incidents that take place in Alberta workplaces. In 2007, Statistics Canada released information from the 2004 General Social Survey of Victimization. Using a definition of violence as 'physical assault, sexual assault and robbery', it found 21% of violent incidents in the workplace result in injury and about 37% of violent incidents are reported to police (de Léséleuc, 2007). About 90% of incidents involve a single male perpetrator. In 2011, the WCB accepted 420 lost-time claims and 546 disabling injury claims related to assaults and violent acts by person(s). This equates to one in every 63 lost-time claims and one in every 93 disabling injury claims. The number of claims is not a reflection of violent workplace incidents, however, as not all incidents result in injury.

Chart 7.1
Proportion of Lost-Time Claims, Disabling Injury Claims due to Assaults and Violent Acts by Person(s), Employment and Hours Worked by Gender, Alberta: 2011



Data Source: WCB Data, Prepared by Research and Analysis; Statistics Canada's Labour Force Survey (2011 Historical Review)

Women filed more injury claims due to an assault or violent act than their male counterparts (see Chart 7.1). Violent incidents also varied greatly by industry sector. Statistics Canada found that 33% of victims worked in social assistance or health care (de Léséleuc, 2007). The WCB data suggests that assaults and violent acts are more likely in the Health Services Industries than in other industries in the province. Rehabilitation Services for the Disabled had the highest proportion disabling injury claims for assaults and violent acts by person(s) accounting for 14.2% of all disabling injury claims (see Table 7.5).

Table 7.5
Lost-Time and Disabling Injury Claims by Industry - Assaults and Violent Acts by Person(s), Alberta: 2011

Industry	Lost-Time Claims			Disabling Injury Claims		
	Assaults and Violent Acts by Person(s) Claims	Total Claims	%	Assaults and Violent Acts by Person(s) Claims	Total Claims	%
Hospitals/Acute Care Centers (82100)	66	2,028	3.3%	73	2,268	3.2%
Rehabilitation Services For Disabled (82806)	36	229	15.7%	47	331	14.2%
Cities (95104)	43	1,234	3.5%	60	1,844	3.3%
Continuing Care Facilities (82808)	47	813	5.8%	64	1,043	6.1%
Social/Community Support Services (89925)	25	198	12.6%	33	265	12.5%
School Boards (80102)	23	456	5.0%	37	678	5.5%
Security Services/Industrial Patrols (89902)	25	155	16.1%	28	204	13.7%
Food/Convenience Stores (63100)	12	1,194	1.0%	13	2,243	0.6%
Restaurants/Take-Out Food Service (87501)	13	1,159	1.1%	14	1,455	1.0%
Hotels and Convention Centres (87503)	11	460	2.4%	13	777	1.7%
All Other Industries	119	18,703	0.6%	164	39,514	0.4%
All Industries	**420**	**26,629**	**1.6%**	**546**	**50,622**	**1.1%**

Data Source: WCB Data, Prepared by Research and Analysis

Days-lost due to Disability

Days-lost due to disability[18] shows the severity of the effects of occupational injury and disease as reflected by the number of days off work. The efforts of employers to introduce modified work programs to integrate injured workers back into the workforce can have a positive impact on work days lost.

In 2011, over half of all total lost-time claims in 2011 resulted in ten or fewer days lost from work (see Table 7.6). Approximately one-fifth of the claims (21.5%) resulted in 31 or more days lost. The median number of days lost was seven, the same as in 2010. The average number of days lost remained at 23 in 2011.

Table 7.6
Days-lost due to Disability – Alberta: 2010 to 2011

Days-lost due to Disability	2010		2011	
	Lost-Time Claims	%	Lost-Time Claims	%
1 Day	2,778	11.4%	**3,171**	**11.9%**
2 Days	2,260	9.3%	**2,585**	**9.7%**
3 - 5 Days	4,177	17.2%	**4,531**	**17.0%**
6 - 10 Days	3,315	13.6%	**3,615**	**13.6%**
11 - 20 Days	3,016	12.4%	**3,242**	**12.2%**
21 - 30 Days	1,593	6.5%	**1,762**	**6.6%**
31 Days or more	5,396	22.2%	**5,729**	**21.5%**
Unspecified	1,808	7.4%	**1,994**	**7.5%**
Total	24,343	100.0%	**26,629**	**100.0%**

Data Source: WCB Data, Prepared by Research and Analysis

The Agriculture and Forestry sector had the highest median and average days lost at 18 and 38. This was followed by the Construction and Construction Trade Services sector with 12 and 35, and the Transportation, Communication and Utilities sector with 10 median days lost and 30 average days lost.

Among the major nature of injuries or diseases, the median workdays lost were highest for fractures and dislocations with a median of 32 and average of 50 days lost. Injuries to the leg(s) were the part of body with the highest median days lost (10 days lost) and average days (31 days lost).

[18] The days-lost due to disability refers to the length of time, in days, for which the worker receives wage compensation from the WCB.

For sources of injury, structures and surfaces had the highest median days lost (10 days lost), and average days lost (31 days lost), followed by vehicles, at a median of nine and an average of 30 days lost. Of the types of event, fall to the lower level, and fires and explosions had the highest median days lost of 18 and 14 respectively. These two types of events had average days lost of 43 and 38 respectively.

OCCUPATIONAL FATALITIES

The WCB accepted 123 occupational fatalities for compensation in 2011.

A WCB accepted occupational fatality is defined as the death of a worker resulting from a work-related incident or exposure which has been accepted by the WCB for compensation. Some of the fatalities accepted in a particular year occurred in a prior year.

Types of Occupational Fatalities Accepted by the WCB

All fatalities were classified by type based on WCB classification standards. Occupational fatalities are classified into three general types:

- motor vehicle incidents (including latent motor vehicle incidents)
- workplace incidents (including latent workplace incidents)
- occupational disease

Occupational Health and Safety Officers investigate workplace incidents while local police authorities normally investigate motor vehicle incidents and workers' physicians report deaths due to occupational disease.

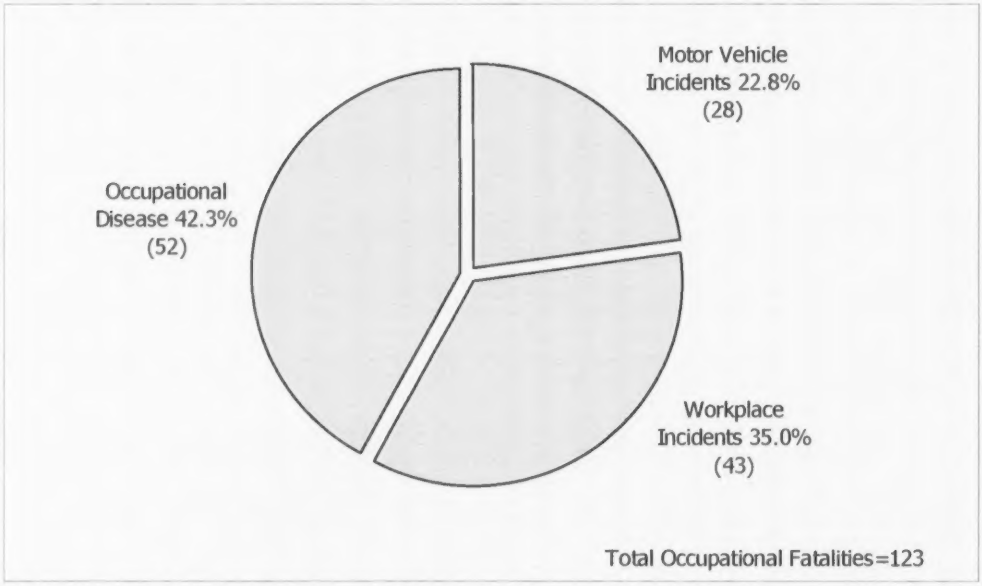
Motor Vehicle Incidents

Motor vehicle incidents typically involve non-industrial vehicles operating on public roads in which the fatally injured worker was either the driver or a passenger. This type of occupational fatality also includes cases involving crashes of aircraft, trains, and water vehicles. In 2011, 22.8% of the occupational fatalities were motor vehicle incidents (see Chart and Table 8.1).

Workplace Incidents

Workplace incidents consist of cases in which the worker died at a worksite or as a result of injuries sustained at a worksite. In 2011, 35.0% of the occupational fatalities were workplace incidents (see Chart and Table 8.1).

Chart 8.1
Types of Occupational Fatalities Accepted by the WCB – Alberta: 2011


Motor Vehicle Incidents 22.8% (28)
Occupational Disease 42.3% (52)
Workplace Incidents 35.0% (43)
Total Occupational Fatalities=123

Data Source: WCB Data, Prepared by Research and Analysis

Occupational Disease

Occupational disease fatalities consist mostly of recognized occupational diseases, that is, diseases known to be primarily or exclusively work-related such as asbestosis and coal workers' pneumoconiosis. This category also includes heart attacks suffered on the job. Occupational diseases are frequently diagnosed several years after the initial or crucial exposure to the toxic substance, and in such cases, it is difficult to determine when the fatal exposure occurred. *The occupational disease category, therefore, should not be interpreted to reflect present worksite hazardous conditions or exposures.* The proportion of occupational fatalities accepted in 2011 resulting from occupational disease was 42.3% (see Chart and Table 8.1).

Table 8.1
Types of Occupational Fatalities Accepted By the WCB[19]– Alberta: 2002-2011

Year	Motor Vehicle Incidents		Workplace Incidents		Occupational Disease		Total
	Number of Fatalities	%	Number of Fatalities	%	Number of Fatalities	%	Number of Fatalities
2002	30	29.7%	40	39.6%	31	30.7%	101
2003	44	34.6%	37	29.1%	46	36.2%	127
2004	37	29.8%	38	30.6%	49	39.5%	124
2005	42	29.4%	40	28.0%	61	42.7%	143
2006	33	26.6%	37	29.8%	54	43.5%	124
2007	44	28.6%	47	30.5%	63	40.9%	154
2008	50	30.5%	51	31.1%	63	38.4%	164
2009	20	18.2%	41	37.3%	49	44.5%	110
2010	31	22.8%	43	31.6%	62	45.6%	136
2011	28	22.8%	43	35.0%	52	42.3%	123
Total	**359**	**27.5%**	**417**	**31.9%**	**530**	**40.6%**	**1,306**

Data Source: WCB Data. Prepared by Research and Analysis

Latent Workplace and Motor Vehicle Fatalities

Latent fatalities involve workers who were involved in a workplace incident or exposure, or a motor vehicle incident that did not become a fatality until much later, often years later. From 2002 onward, these incidents are included with either motor vehicle or workplace incident categories in accordance to their original injury.

[19] From 2002, latent motor vehicle and workplace incident fatalities have been classified under the original incident. Previously, these incidents have been classified and recorded as occupational disease fatalities.

Table 8.2
Latent Fatalities Accepted by the WCB – Alberta: 2002-2011

Year	Number of Latent Motor Vehicle Incidents	Number of Latent Workplace Incidents	Total
2002	1	10	11
2003	0	12	12
2004	3	3	6
2005	3	6	9
2006	0	10	10
2007	1	7	8
2008	3	8	11
2009	3	10	13
2010	2	9	11
2011	3	5	8
Total	**19**	**80**	**99**

Data Source: WCB Data. Prepared by Research and Analysis

Usually other contributing factors cause a latent fatality, although these contributing factors are the result of the initial injury or exposure. A motor vehicle incident where a worker received leg injuries requiring surgery is a good example. If complications during surgery result in a blood clot causing a fatal stroke, then the injury would be classified latent because the original injury caused the requirement for surgery.

Over the past 10 years, there has been an average of 10 latent fatalities accepted each year. In 2011, there were five latent workplace incidents and three latent motor vehicle incidents (see Table 8.2).

Occupational Fatalities: Ten-Year Trend Analysis

Over the past ten years, occupational disease fatality claims accounted for 40.6% of the total accepted fatality claims. Motor vehicle fatalities and workplace incident fatalities accounted for 27.5% and 31.9% of accepted fatality claims respectively (see Table 8.1).

The proportion of motor vehicle fatalities in the total accepted fatalities has fallen over the ten years, although remained the same in 2011. The proportion of workplace incidents has remained broadly similar over the ten years. For occupational diseases, both the proportion and number of claims have increased over the last ten years.

Occupational Fatality Rate

The fatality rate provides an estimate of the number of fatalities in a particular year compared to the size of the working population in a particular year. It is expressed as

fatalities per million person-years worked. In 2011, the number of occupational fatalities decreased in Alberta, and the fatality rate decreased to 69 fatalities per million person-years worked.

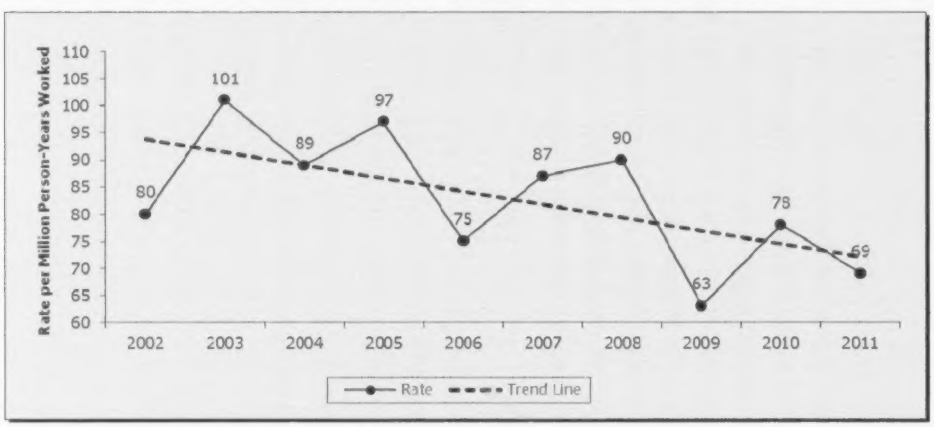
Table 8.3
Occupational Fatality Rates* – Alberta: 2002-2011

Year	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	Total
Total Fatalities	101	127	124	143	124	154	164	110	136	123	1,306
Number of Fatalities Excluding Federal Industries	99	126	120	143	122	150	162	108	135	123	1,288
Fatality Rate	80	101	89	97	75	87	89	63	78	69	82

*Fatality rates are expressed as fatalities per million person-years worked. Estimates are based upon information provided by the WCB. Fatalities occurring under the jurisdiction of the Government of Canada are excluded from the calculation of the fatality rates.
Fatality rates are calculated from person-years worked figures provided by WCB since 2006.
Data Source: WCB Data, Prepared by Research and Analysis.

Between 2002 and 2011, the provincial fatality rate fluctuated between 101 fatalities per million person-years worked in 2003, and 63 fatalities per million person-years worked in 2009. The annual average over the term was 82 fatalities per million person-years worked. The trend line presented in Chart 8.2 shows a decrease in the fatality rate over time.

Chart 8.2
Occupational Fatality Rate – Alberta: 2002-2011



Data Source: WCB Data, Prepared by Research and Analysis

Further analysis by incident

Fatality data has been grouped into two five-year periods to reduce year-to-year variations. Between 2002 to 2006, and 2007 to 2011, there was a modest decline in motor vehicle fatality claims accepted, from 186 to 173 (see Table 8.4).

In contrast, the number of fatalities due to workplace incidents increased over the two five-year periods (see Table 8.5). The number of fatalities as a result of being struck by objects decreased while the number related to exposure to harmful substances, being caught in object, bodily reaction or exertion, increased.

Table 8.4
Motor Vehicle Incident Fatalities by Type of Event – Alberta: 2002-2011

Type of Event or Exposure	2002-2006	2007-2011	Number of Fatalities	Percent
Highway Incident	124	117	241	67.1%
Aircraft Incident	9	14	23	6.4%
Pedestrian Incident*	6	8	14	3.9%
Non-highway Incident**	4	3	7	1.9%
Railway Incident	2	2	4	1.1%
Other	41	29	70	19.5%
Total	**186**	**173**	**359**	**100.0%**

*Includes all non-passengers struck by vehicle or mobile equipment.
**Does not include rail, air or water accidents but includes motor vehicle incidents occurring off the highway e.g. Industrial or commercial premises, city roads or parking lots.
Data Source: WCB Data. Prepared by Research and Analysis

Table 8.5
Workplace Incident Fatalities by Type of Event – Alberta: 2002-2011

Type of Event or Exposure	2002-2006	2007-2011	Number of Fatalities	%
Contact with Objects and Equipment	**63**	**68**	**131**	**31.4%**
Struck by Objects	41	35	76	18.2%
Caught in Objects	21	31	52	12.5%
Struck Against Objects	1	2	3	0.7%
Falls	**40**	**40**	**80**	**19.2%**
Fall to Lower Level	29	23	52	12.5%
Fall on Same Level	10	13	23	5.5%
Other Falls	1	4	5	1.2%
Transportation Accidents*	**15**	**39**	**54**	**12.9%**
Exposure to Harmful Substances	**14**	**22**	**36**	**8.6%**
Fires and Explosions	**6**	**6**	**12**	**2.9%**
Assaults and Violent Acts	**9**	**5**	**14**	**3.4%**
Assaults/Violent Acts by Persons	8	5	13	3.1%
Other Assaults/Violent Acts	1	0	1	0.2%
Overexertion	**1**	**8**	**9**	**2.2%**
Bodily Reaction or Exertion	**2**	**7**	**9**	**2.2%**
Other Bodily Reaction/Exertion	**0**	**8**	**8**	**1.9%**
Unknown	**42**	**22**	**64**	**15.3%**
Total	**192**	**225**	**417**	**100.0%**

*Transportation incidents include all events that involve industrial vehicles, transportation vehicles or powered mobile industrial equipment.
Data Source: WCB Data, Prepared by Research and Analysis

Occupational Fatality Rates in Industry Sectors

The estimated occupational fatality rate for Alberta in 2011 was 69 fatalities per million person-years worked (see Chart 8.3 and Table 8.3), a decrease from 78 fatalities per million person-years worked in 2010. Unlike the lost-time claim rate, however, the fatality rate is not a reliable indicator of the present risk of work-related injury and disease since conditions that resulted in the exposure or disease may no longer be present (e.g., asbestosis).

Fatality rates vary across industry sectors due to the different types of work activity performed. Comparing two periods, 2002 – 2006, and 2007 to 2011, six sectors saw decreases in their fatality rate. The largest decline was in the Mining and Petroleum Development sector, followed by the Transportation, Communication and Utilities

sector. The largest increase in the fatality rate was in the Agriculture and Forestry sector, which also had the highest fatality rate over the last ten years (see Table 8.6) of 276 fatalities per million person-years worked. The ten-year provincial rate was 82 fatalities per million person-years worked. Caution should be used in considering the fatality rate for Agriculture and Forestry. Most of the industries in this sector do not require compulsory workers' compensation coverage, resulting in the under-counting for this sector.

The Construction and Construction Trade, Transportation, Communication and Utilities, Mining and Petroleum Development, and Manufacturing and Processing sectors had higher occupational fatality rates than the average for all sectors (see Table 8.6).

Table 8.6
Occupational Fatality Rates* by Industry Sector – Alberta: 2002-2011

Major Industry Sector	2002-2006		2007-2011		Ten-year Total	
	Number of Fatalities	Fatality Rate	Number of Fatalities	Fatality Rate	Number of Fatalities	Fatality Rate
Agriculture and Forestry	11	217	17	336	28	276
Business, Personal and Professional Services	24	19	29	17	53	18
Construction and Construction Trade Services	208	196	263	160	471	174
Manufacturing and Processing	74	80	88	96	162	88
Mining and Petroleum Development	77	150	61	78	138	107
Public Administration, Education and Health Services	55	45	63	43	118	44
Transportation, Communication and Utilities	108	191	99	145	207	166
Wholesale and Retail	46	34	48	31	94	32
Unspecified Sector	16	N/A	19	N/A	35	N/A

*Fatality rates are calculated from person-years worked provided by WCB since 2006.
Data Source: WCB Data, Prepared by Research and Analysis

The Construction and Construction Trade sector accounted for 38.3% of occupational fatalities over the last five years. In 2011, it accounted for 44.7% of fatalities (see Table 8.7) compared to 19.5% of the total person-years worked in the province (see Tables 3.1 and 5.3).

Table 8.7
Occupational Fatality Claims by Major Industry Sector – Alberta: 2007-2011

Major Industry Sector	2007	2008	2009	2010	2011	Number of Fatalities	Percent
Agriculture and Forestry	5	2	5	4	1	17	2.5%
Business, Personal and Professional Services	9	11	1	6	2	29	4.2%
Construction and Construction Trade Services	51	64	34	59	55	263	38.3%
Manufacturing and Processing	22	18	17	15	16	88	12.8%
Mining and Petroleum Development	10	13	13	15	10	61	8.9%
Public Administration, Education and Health Services	14	14	13	8	14	63	9.2%
Transportation, Communication and Utilities	28	23	12	21	15	99	14.4%
Wholesale and Retail	11	13	10	7	7	48	7.0%
Unspecified Sector	4	6	5	1	3	19	2.8%
Total	**154**	**164**	**110**	**136**	**123**	**687**	**100%**

Data Source: WCB Data. Prepared by Research and Analysis

Occupational Fatalities by Age Group

Distribution of occupational fatalities in Alberta is not even across age groups. Workers aged 45 years and older accounted for about 73.2% of fatalities in 2011 (see Table 8.8 and Chart 8.3). As many fatalities in this age group are the result of working conditions present when these workers were younger, removing the occupational disease fatalities from the total allows for a better comparison (see Table 8.9).

Table 8.8
Occupational Fatalities by Age Group – Alberta: 2002-2011

Age Group	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	Total
12-14 Years	0	0	0	1	0	0	0	0	0	0	**1**
15-24 Years	6	8	13	10	4	8	8	5	8	9	**79**
25-44 Years	35	38	36	35	34	35	42	24	27	24	**330**
45+ Years	60	81	75	97	86	111	114	81	101	90	**896**
Total	**101**	**127**	**124**	**143**	**124**	**154**	**164**	**110**	**136**	**123**	**1,306**

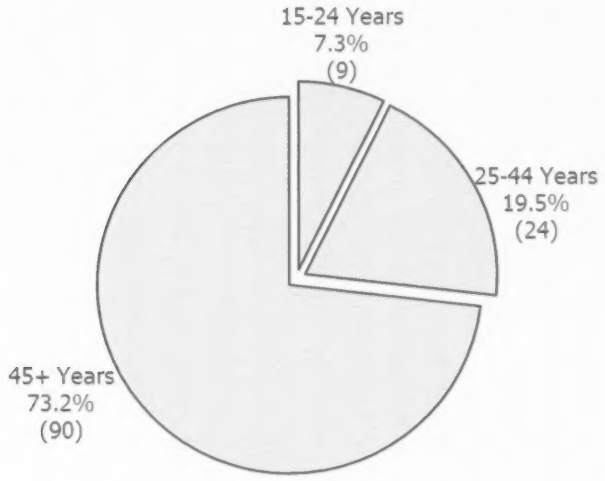
Data Source: WCB Data, Prepared by Research and Analysis

Table 8.9
Occupational Fatalities (excluding Occupational Disease Fatalities) by Age Group – Alberta: 2002-2011

Age Group	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	Total
12-14 Years	0	0	0	1	0	0	0	0	0	0	**1**
15-24 Years	6	8	13	10	4	8	8	5	8	9	**79**
25-44 Years	33	37	35	33	32	35	42	24	27	23	**321**
45+ Years	31	36	27	38	34	48	51	32	39	39	**375**
Total	**70**	**81**	**75**	**82**	**70**	**91**	**101**	**61**	**74**	**71**	**776**

Data Source: WCB Data, Prepared by Research and Analysis

Chart 8.3
Occupational Fatalities by Age Group – Alberta: 2011



Total Occupational Fatalities=123

Data Source: WCB Data. Prepared by Research and Analysis

CERTIFICATE OF RECOGNITION

A Certificate of Recognition (COR) is given to employers who develop health and safety programs that meet established standards. Certificates are jointly issued by Certifying Partners and HS.[20]

In 2011, the number of employers with a COR increased from 10,065 in 2010 to 10,174. These employers represented 6.1% of all employer accounts with WCB in the province, although they represent 45.1% of the total person-years worked (see Table 9.1).

The Construction and Construction Trade sector had the highest proportion of employers with a COR. The Business, Personal and Professional Services sector had the lowest proportion of COR-certified employers.

Table 9.1
Employers With Valid COR — Alberta: 2011

Sub-Sector	% of Total Employers Certified	% of Total Person-Years Certified
Agriculture and Forestry	8.9%	36.0%
Business, Personal and Professional Services	1.9%	28.5%
Construction and Construction Trade	9.0%	66.3%
Manufacturing and Processing	6.5%	48.9%
Mining and Petroleum Development	5.8%	72.3%
Public Administration, Education and Health Services	5.7%	41.5%
Transportation, Communication and Utilities	8.0%	46.7%
Wholesale and Retail	3.5%	26.1%
Overall	6.1%	45.1%

Data Source: Partnership and WCB Data, Prepared by Research and Analysis

Between 2010 and 2011, the lost-time claim rate for 2011 COR holders fell from 1.41 to 1.39 per 100 person-years worked. The rate for all non-COR holders increased from 1.52 to 1.57 per 100 person-years worked. The disabling injury rate for COR holders decreased to 3.33 per 100 person-years worked, and non-COR holders saw an increase of 0.16 in their disabling injury rate to 2.41 per 100 person-years worked (see Table 9.2). A low lost-time claim rate and high disabling injury rate can be indicative of proficient

[20] For more information on the COR program visit http://humanservices.alberta.ca/working-in-alberta/334.html

claims management, however, it may also be a reflection of larger employers having greater capacity to offer modified duties to injured workers than smaller employers.

Comparing COR holders against all non-COR holders provides useful information about each group, although it does not compare like-with-like. A COR is given to employers who develop health and safety programs that meet established standards. While this group is seeing continued improvement, some non-COR holders may have good health and safety programs that may even exceed the COR standard. These employers are being counted along with those employers that may have no health and safety systems in place. This makes evaluating improving health and safety trends less clear for non-COR holders.

Table 9.2
Lost-Time Claim and Disabling Injury Rates for COR Holders — Alberta: 2010 and 2011

Employer	Year	Number of Accounts	Lost-Time Claims	Disabling Injury Claims	Lost-Time Claim Rate	Disabling Injury Rate	Change in Lost-Time Claim Rate	Change in Disabling Injury Rate
COR	2010	10,065	10,540	25,461	1.41	3.40	-0.02	-0.07
	2011	10,174	11,222	26,959	1.39	3.33		
Non-COR	2010	149,891	14,299	21,164	1.52	2.25	0.05	0.16
	2011	155,344	15,407	23,663	1.57	2.41		

Note: Active COR holders recorded in the Certificate of Recognition Registry Systems (CORRS) is based on information received on January 3, 2012. COR status can be affected by timing of audits, changes in business nature, or WCB account-industry changes.

SECTION 10

WORKPLACE INSPECTIONS AND ORDERS

HS works with employers and workers to improve health and safety at Alberta's worksites.

While promoting education and best practices at Alberta workplaces, HS also uses inspections and incident investigations to identify non-compliance with legislation so health and safety can be improved.

The intent of inspections is to monitor compliance at work sites where an inspection is likely to make the most impact. Poor health and safety performance and uncontrolled hazards are subject to focused inspections. HS officers also investigate reported complaints and serious incidents. In 2011, HS completed 14,959 inspections and associated activities.

When non-compliance is identified, HS will work co-operatively with the responsible parties to correct the situation. When necessary, orders are issued by HS to correct variances with regulatory requirements. HS issued 9,117 orders in 2011.

Table 10.1
Workplace Inspections and Orders – Alberta: 2011

	2011
Number of OHS Officer Activities[21]	14,959
Number of Orders Written	9,117

Data Source: Worksite Inspection Tracking System

[21] The category "OHS Officer Activities" provides an annual snapshot of the activities performed by Occupational Health and Safety officers. In 2011, OHS implemented a new electronic database that tracks more accurately the different types of activities which contribute to maintaining healthy and safe Alberta worksites. These educational and enforcement activities include meetings, documentation reviews, inspections and investigations.

REFERENCES

Alberta Associates of Safe Rural Environments. "Farm Accident Monitoring System".

Alberta Human Services. "Occupational Injuries and Diseases in Alberta 2010 Summary," 2011.

Association of Workers' Compensation Boards of Canada. National Work Injury and Disease Statistics for 2010, December 2011.

Canadian Standards Association. *Z795-03: Coding of Work Injury or Disease Information*, June 2003.

de Léséleuc, S., "Criminal Victimization in the Workplace: 2004," Statistics Canada, February 2007.

Mah, D. (2003), "Presumptions and Rebuttals," *WCB Insight*.

Sharp, A. & Hardt, J., "Five Deaths a Day: Workplace Fatalities in Canada, 1993-2005," Centre for the Study of Living Standards, 2006.

Statistics Canada. "Guide to the Labour Force Survey," 2012.

The Workers' Compensation Board. "Rate and Industry Description Manual".

Statistics Canada's Labour Force Survey (2011 Historical Review),

http://eae.alberta.ca/labour-and-immigration/labour-market-information/labour-force-statistics-and-annual-reviews.aspx

APPENDIX A: TERMS, DEFINITIONS AND FORMULAS

Lost-Time Claim

A lost-time claim (LTC) is a claim for an occupational injury or disease that causes the worker to have time away from work beyond the day of injury. Included are claims receiving reimbursement of full or partial lost wages due to occupational illness or injury, or payment for permanent loss of function.

Modified Work Claim

A modified work claim is a claim for an occupational injury or disease where workers had their normal work duties altered to enable them to remain working without losing time from work. Also included are claims where injured workers are helped back into the workplace with modified duties after time lost due to injury or disease.

Disabling Injury Claim

Disabling injury (DI) claims combine both lost-time and modified work to produce an overall figure where an occupational injury or disease disables the worker causing either time-lost from work or for their normal work duties to be modified.

Person-Years Worked

Person-years worked are estimates provided by the WCB. One person-year is equivalent to one full-time worker working for one year, and can be assumed to equal 2,000 hours worked.

Lost-Time Claim Rate

The lost-time claim rate is calculated by dividing the number of lost-time claims by the person-years worked estimate, and multiplying the result by 100. The lost-time claim rate represents the probability or risk of an injury or disease to a worker during a period of one-year work, which will result in time lost from work. Comparisons of lost-time claim rates between industries, or between years, can be used to indicate increases, decreases, or differences in this risk.

$$\text{LTC Rate} = \frac{\text{Number of LTC's}}{\text{Person-years worked}} \times 100$$

Disabling Injury Rate

The disabling injury rate is calculated by dividing the number of disabling injury claims by the person-years worked estimates, and multiplying the result by 100. The disabling injury rate represents the probability or risk of a disabling injury or disease to a worker during a period of one-year of work. The disabling injury rate is similar to the lost-time claim rate although it covers a broader range of injuries, including those that are less severe in nature (do not require time away from work). The rate represents the number of claims per 100 person-years worked and includes claims made for both lost-time and modified work.

$$\text{Disabling Injury Rate} = \frac{\text{Number of DI's}}{\text{Person-years worked}} \times 100$$

Days-lost

The days-lost is the number of days following the injury or disease for which the worker was disabled and unable to perform normal work duties. This information is obtained for this report from data on compensation days paid on each claim from the WCB. Alberta Human Services obtains these data on March 31 of the year following the claim year, and does not update the information, even though many injured workers continue to be disabled beyond this date. As a result, the days-lost information reported here underestimates the true impact of lost-time injury and disease, although it provides a consistent method for reporting and observing trends in days-lost.

Industry Coverage

This report focuses on all industry activity in Alberta covered by the WCB and by the provincial legislation for occupational health and safety. Most industry sectors are included but notable exceptions consist of the Government of Canada, and parts of the agriculture and finance sectors. Several professional groups (i.e. the teaching and medical professions) are also excluded as are some industries where WCB coverage is not compulsory.

WCB Accepted Fatality

An occupational fatality is the death of a worker which resulted from a work-related incident or exposure and which has been accepted by the WCB for compensation. A fatality is counted in the year it is accepted.

Fatality Rate

The fatality rate is calculated by dividing the number of accepted fatalities by the person-years worked estimate and multiplying the result by one million. The result is expressed as fatalities per million person-years worked. Fatalities that are found under the jurisdiction of the Government of Canada are excluded before the calculation of the fatality rate.

$$\text{Fatality Rate} = \frac{\text{Number of Fatalities}}{\text{Person-years worked}} \times 1{,}000{,}000$$

NEC Means 'Not Elsewhere Classified'.

UNS Means 'Unspecified'.

Labour Force Survey

The Labour Force Survey (LFS) is a household survey carried out monthly by Statistics Canada. Data from the survey provide information on major labour market trends such as shifts in employment across industry sectors, hours worked, labour force participation and unemployment rates.

Annual LFS data have been analyzed alongside injury and disease information to aid the understanding of injury risk or frequency by worker type. Although the LFS and WCB use somewhat different industry classification systems, where possible, information from these two systems was compared and attempts were made to reconcile the employment numbers from both sources. For further information on the LFS, please see http://www.humanservices.alberta.ca/2653.html

CONTACT INFORMATION

For further information about the data presented in this report contact:

Government of Alberta
Human Services
Research and Analysis
2nd Floor, 10808 – 99 Avenue
Edmonton, Alberta
T5K 0G5

Telephone: 780-427-8531, toll free by calling 310-0000
Fax: 780-422-5070

Human Services website:

www.humanservices.alberta.ca/

Work Safe Alberta website:

http://humanservices.alberta.ca/working-in-alberta/274.html

Occupational Health and Safety Contact Centre:

Telephone: 780-415-8690, toll free by calling 1-866-415-8690

http://humanservices.alberta.ca/working-in-alberta/2874.html

Certificate of Recognition (COR) Program:

http://humanservices.alberta.ca/working-in-alberta/334.html